420-6742-01UK REV 0

SERVICE MANUAL



DELUXE TYPE



IMPORTANT!

Before using this product, read this SERVICE MANUAL carefully to understand the contents stated herein. After reading this manual, be sure to keep it available nearby the product or somewhere convenient in order to be able to refer to it whenever necessary.

Manufactured in the UK by SEGA®



CONTENTS

1. BEFORE USING THIS PRODUCT

To ensure the safe usage, be sure to read the following before using the product. The following instructions are intended for the use of QUALIFIED SERVICE PERSONNEL ONLY.

If any activity is carried out on the product, this should be done only after carefully reading and sufficiently understanding the instructions.

Only qualified service personnel should carry out maintenance on the product.

Depending on the potential risk, terms such as" **WARNING!**" "**CAUTION**" and "**IMPORTANT**!" are used where an explanation is given that requires special attention. SEGA is not responsible for injury or damage caused by use in a manner contrary to the instructions given in this document.

In order to prevent accidents warning stickers and printed instructions are applied in the places where a potentially hazardous situation relating to the product could arise. Be sure to comply with these warnings.



Indicates that mishandling the product by disregarding this warning will cause a potentially hazardous situation that can result in death or serious injury.



Indicates that mishandling the product by disregarding this caution will cause a potentially hazardous situation that can result in personal injury and or material damage.



This is cautionary information that should be complied with when handling the product. Indicates that mishandling the product by disregarding this will cause a potentially hazardous situation that may not result in personal injury but could damage the product.

Be sure to turn off the power and disconnect from the mains supply before working on the machine.

Ensure that the correct fuses are fitted to the machine. Details of these are enclosed in the Service Manual.

Ensure that only qualified Service Engineers perform any maintenance work on the machine.

Specification changes, removal of equipment, conversion and/or additions not designated by SEGA are not permitted and will invalidate this product's CE conformity.

Warning labels or safety covers for personal protection etc, are component parts of the product. A potential hazard will be created if the machine is operated while any parts have been removed. Do not operate the product if any doors, lids or protective covers become damaged or lost. SEGA is not liable in any whatsoever for any injury and/or damage caused by specification changes not designated by SEGA.

Before installing the product, check for the Electrical Specification Sticker, SEGA products have a sticker on which the electrical specifications are detailed. Ensure that the product is compatible with the power supply voltage and frequency requirements of the location in which the machine is to be installed.

Install and operate the machine only in places where appropriate lighting is available, allowing warning stickers to be clearly read.

To ensure maximum safety for customers and operators, stickers and printed instructions describing potentially hazardous situations are applied to potentially hazardous locations. Ensure that the product's operating location has sufficient lighting to allow any warnings to be read. If any sticker or printed warning is removed or defaced, do not operate the machine until an identical item has replaced it.

Exercise great care when handling the monitor (applies only to product with monitor). Some of the monitor (TV) parts are subject to high-tension voltage. Even after turning the power off some components are liable to high-tension voltage. Only qualified service engineers should perform monitor repair and replacement.

In cases where commercially available monitors and printers are used, only the items relating to this product are contained in this manual. Some commercially available equipment will have functions and reactions not referred to in this manual. This manual should be read in conjunction with the specific manufacturer's manual for such equipment.

Descriptions contained herein may be subject to change without prior notification.

The contents described herein are fully prepared with due care. However, should any question arise or errors be found please contact **SEGA AMUSEMENTS EUROPE LTD**.

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1.1. INSPECTIONS IMMEDIATELY AFTER TRANSPORTING THE PRODUCT TO THE LOCATION



- Only QUALIFIED SERVICE PERSONNEL should carry out inspection.

Normally, at the time of shipment, SEGA products are in a state to allowing usage immediately after transporting to the location. Nevertheless, an irregular situation may arise during transportation preventing this. Before turning on the power, check the following points to ensure that the product has been transported safely.

- Are then any dented parts or defects (cuts, etc.) on the external surfaces of the product.?
- Are castors and leg adjusters present and undamaged?
- Do the power supply voltage and frequency requirements meet with the local supply?
- Are all wiring connectors correctly and securely connected? Unless connected in the correct direction, connector connections cannot be made successfully. Do not insert connectors forcibly.
- Are all IC’s of each IC BD firmly inserted?
- Does the power cord have any cuts or dents?
- Do fuses meet the specified rating?
- Are such units such as monitors, control equipment, IC BD, etc. firmly secured?
- Are all earth wires connected?
- Are all accessories available?
- Can all doors and lids be opened with the accessory keys and/or tools?

CONCERNING THE STICKER DISPLAY	CONCERNING WARNING STICKERS
SEGA product has stickers describing the product manufacture number (Serial Number) and electrical specification. If you require service assistance you will require the Serial Number. Identical machines may have different parts fitted internally. Only by quoting the Serial Number will the correct parts be identified.	SEGA product has warning displays on stickers, labels or printed instructions adhered/attached to or incorporated in the places where hazardous situations can arise. The warning displays are intended for the accident prevention of customers and service personnel.



SPECIFICATIONS

Installation Space (cm):	114 x 164.6
Height (cm):	198
Weight (kg):	247
Rated Voltage (V.AC):	230/50Hz
Rated Current:	2A
Operating Temperature Range:	5-30ºC

Note: Descriptions in this manual are subject to change without prior notice.

2. INTRODUCTION TO THIS SERVICE MANUAL

SEGA ENTERPRISES LTD. supported by its experience in electronic high technology of VLSI's, microprocessors etc. and with a wealth of experience, has for more than 30 years been supplying various innovative and popular games to the world market. This Service Manual is intended to provide detailed descriptions together with all the necessary information covering the general operation of electronic assemblies, electro-mechanicals, servicing controls, spare parts, etc. as regards this new SEGA product. This manual is intended for those who have knowledge of electricity and technical expertise especially in IC's, CRT's, microprocessors etc. Carefully read this manual to acquire sufficient knowledge before working on the machine. Should there be any malfunction, non-technical personnel should under no circumstances touch the internal systems. Should such a situation arise contact our head office.

SEGA AMUSEMENTS EUROPE LTD./ SEGA SERVICE CENTRE
Suite 3a
Oaks House
12 - 22 West Street
Epsom
Surrey
United Kingdom
KT18 7RG

3. INSTALLATION AND SERVICE INSTRUCTIONS

STOP
IMPORTANT

- Only QUALIFIED SERVICE PERSONNEL should carry out installation and commissioning.

3.1. HANDLING AND INSTALLATION PRECAUTIONS

When installing or inspecting the machine, be very careful of the following points and pay attention to ensure that the player can enjoy the game safely.

The game must NOT be installed under the following conditions:

- Outside, the game is designed for indoor use only.
- In areas directly exposed to sunlight, high humidity, dust, excessive heat or extreme cold.
- In locations that would present an obstacle in the case of an emergency i.e. near fire equipment or emergency exits.
- On unstable surfaces or surfaces subject to vibration.
- Where liquids, other than routine cleaning, may come into contact with the game.

Important:

- Only Qualified Service Personnel should install this machine.
- Be sure to switch the supply power OFF and remove the mains supply plug from the machine before any work is carried out on the machine.
- Do not attempt to repair the PCB's (Printed Circuit Boards) yourself. This will void the warranty. The PCB's contain static sensitive devices that could be damaged.
- Always return a faulty part to your distributor with adequate packaging and protection.
- When removing the plug from the mains always grasp the plug not the cable.
- Do not use a fuse that does not meet the specified rating.
- Make sure all connections are secure before applying power.

STOP
IMPORTANT

- Ensure that the mains lead is not damaged. If the mains lead is damaged in any way there could be a danger of electric shock or a fire hazard.
- Ensure that the power supply is fitted with circuit protection. Using the power supply without circuit protection is a fire hazard.

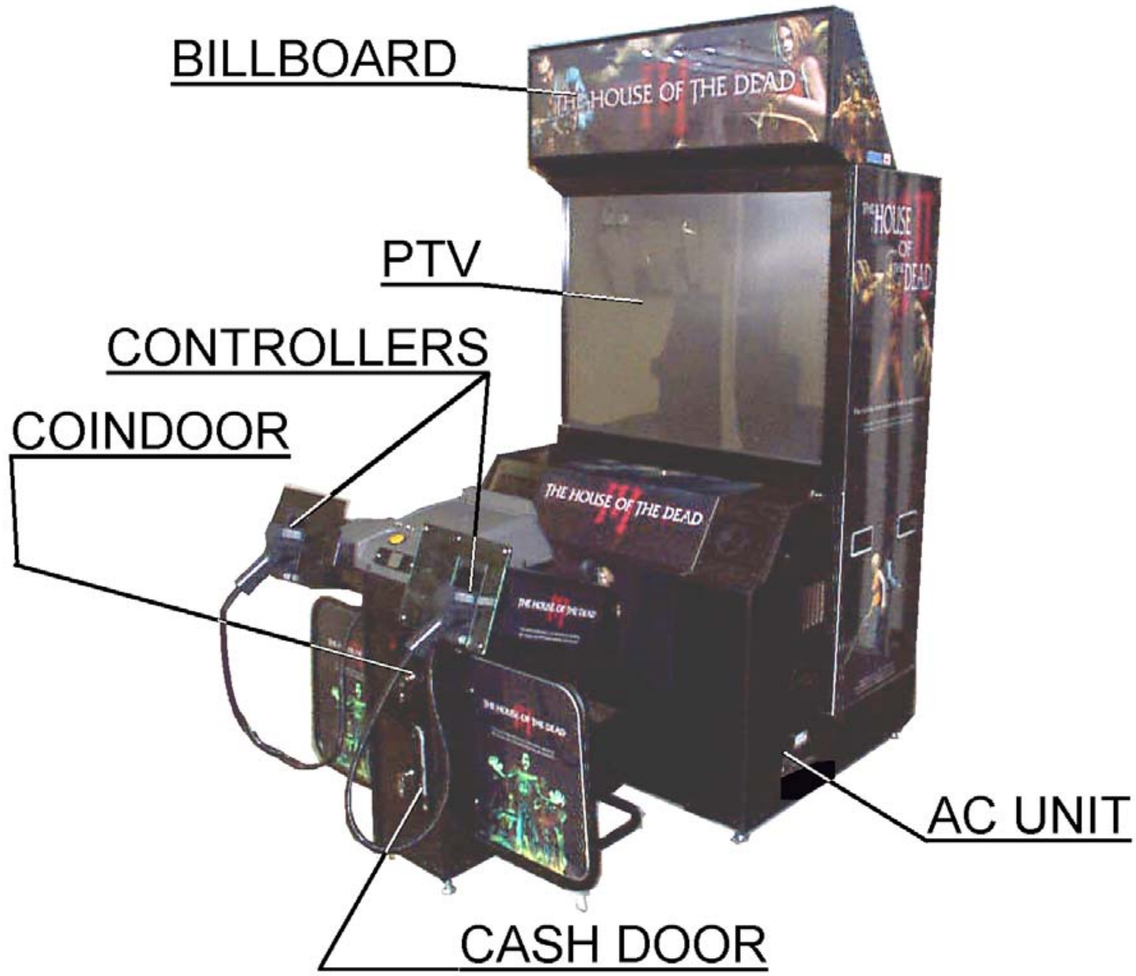
3.2. COIN HANDLING

Standard Sega machines are fitted with a SR3 coin mechanism, however, as a service to our customers Sega machines can be supplied with no coin mechanism or door allowing the customer to fit a coin handling option from the approved list. Fit only the coin handling arrangements detailed below and follow the instructions provided in section 3.8. Failure to fit the coin handling options detailed or failure to follow the installation instructions will render the machine, under the CE marking directive, void.

Approved coin handling options:

- Coin controls SR3
- Generic mechanical
- Mars (MS111B1 and ME115)
- SECI RM4-G20

3.3. NAME OF PARTS



	Width (cm)	Length (cm)	Height (cm)	Weight (kg)
PTV	114	53	158	91
BILLBOARD	114	40	40	19
MAIN CABI DX	114	96.8	93.9	87
GUN CABI	54.8	101	98.7	40
When Assembled	114	164.6	198	247

3.4. ACCESSORIES

The machine is supplied with an installation kit. Please ensure the following parts are supplied:

Item	Component Part	Qty.	Description
1	HDT-0520UK	1	ASSY BILLBOARD DX
2	HOD-0006	2	L BRKT
4	440-CS0186UK	1	STICKER C EPILEPSY MULTI
6	HDT-2180UK	1	ASSY GUN HOLDER W/TETHER L
7	HDT-2190UK	1	ASSY GUN HOLDER W/TETHER R
22	PK0318	1	CARTON BOX INST KIT HDT DX
23	SAECE-XXX	1	DECLARATION OF CONFORMITY
24	HDT-2002UK	1	INST PLATE HDT DX MULTI
101	290094	0.08	WRAP BUBBLE (SM) 600MM X 100M
201	030-000850-SB	4	M8X50 BLT W/S BLK
202	030-000830-SB	8	M8X30 BLT W/S BLK
203	029-F00625-0B	4	M6X25 SKT CSK BLK
205	000-T00420-0B	4	M4X20 MSCR TH BLK
206	068-441616-0B	4	M4 WSHR 16OD FLT BLK
207	030-000840-SB	8	M8X40 BLT W/S BLK
208	068-852216-0B	24	M8 WSHR 22OD FLT BLK
209	030-000860-0B	4	M8X60 BLT BLK
401	420-6620UK	1	SERVICE MANUAL GD ROM SYSTEM
402	OS1019	2	SELF SEAL BAG 9X12.3/4
403	420-6742-01UK	1	SERVICE MANUAL HDT DX
405	390-5160	1	LAMP WG B TYPE 6V 3W (C2R)
406	509-5080	2	SW MICRO TYPE (SS-5GL2)
413	514-5078-5000	1	FUSE 5X20 CERAMIC SB 5000mA

3.5. SHIPPING THE GAME BOARD

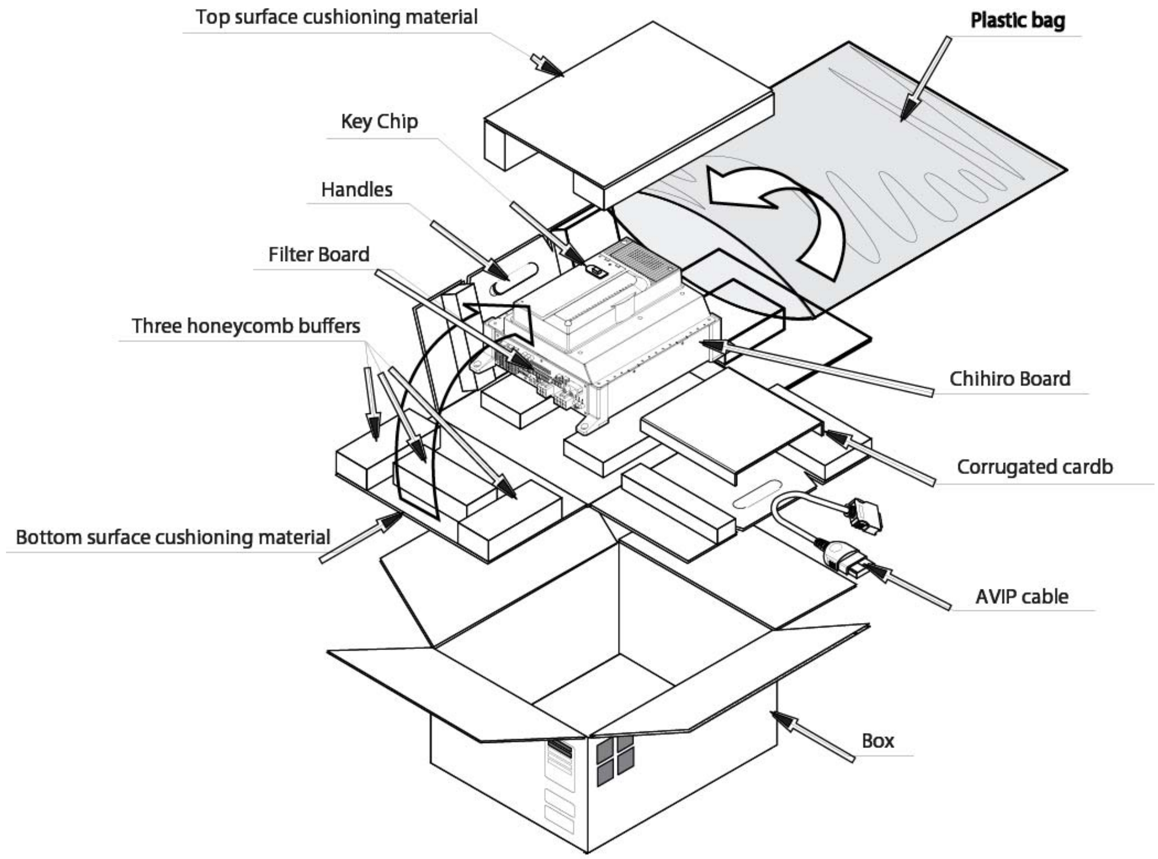
<table>
<tr>
<td>STOP
IMPORTANT</td>
<td>Replacement or repair of the Game Board (Chihiro) for this product should be undertaken at the appropriate repair centre. Be sure to follow the specifications below when requesting repairs/sending the board to the repair centre. Not following the specifications may result in the board not being accepted or in extra charges being made.

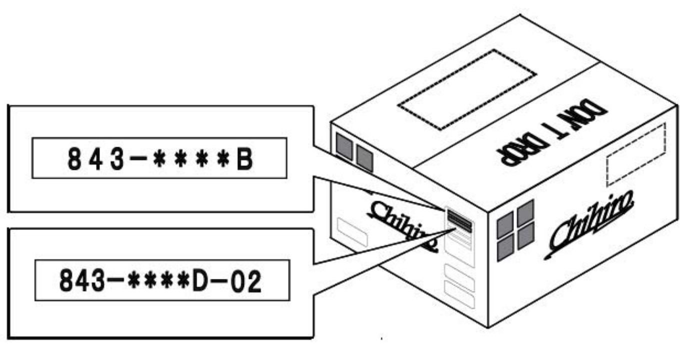
Put the game board in the carton box as is. Do not carry out any disassembly or part removal other than that specified.
Follow the procedure and instructions regarding direction below when placing the Game Board in the carton box.
When packing the game board with the Media Board attached, do not remove the Key Chip.
When packing the game board with the Media Board detached, be sure to include the AVIP Cable.
When packing, attach the accessory stickers in the specified places on the Game Board and carton box.

</td>
</tr>
</table>

INSTRUCTIONS

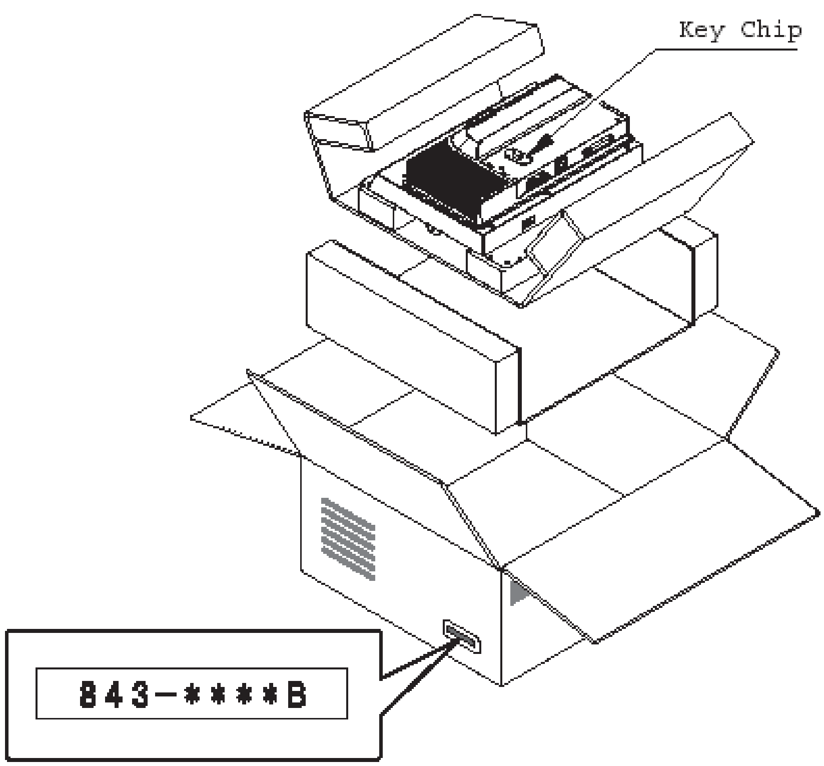
1. Wrap the Chihiro Board in a plastic bag.
2. Place it on top of the bottom surface cushioning material. Turn the Filter Board to face the side with the three honeycomb buffers. Packing it in the opposite direction may cause damage to the Filter Board.
3. Insert corrugated cardboard into the space between the lateral honeycomb buffers of the bottom surface cushioning material and stow the AVIP cable inside.
4. Place the Chihiro Board wrapped in the bottom surface cushioning material into the carton box. Use the handles on the bottom surface cushioning material.
5. Place the upper surface cushioning material on top of the Chihiro Board. Be sure to align it in the right direction, as it will not fit otherwise.
6. Close the top of the carton box and seal it tightly with adhesive tape.


Top surface cushioning material
Plastic bag
Key Chip
Handles
Filter Board
Three honeycomb buffers
Chihiro Board
Corrugated cardb
Bottom surface cushioning material
AVIP cable
Box


843-****B
843-****D-02
DON'T DROP
Chihiro
Chihiro

3.6. SHIPPING THE MEDIA BOARD

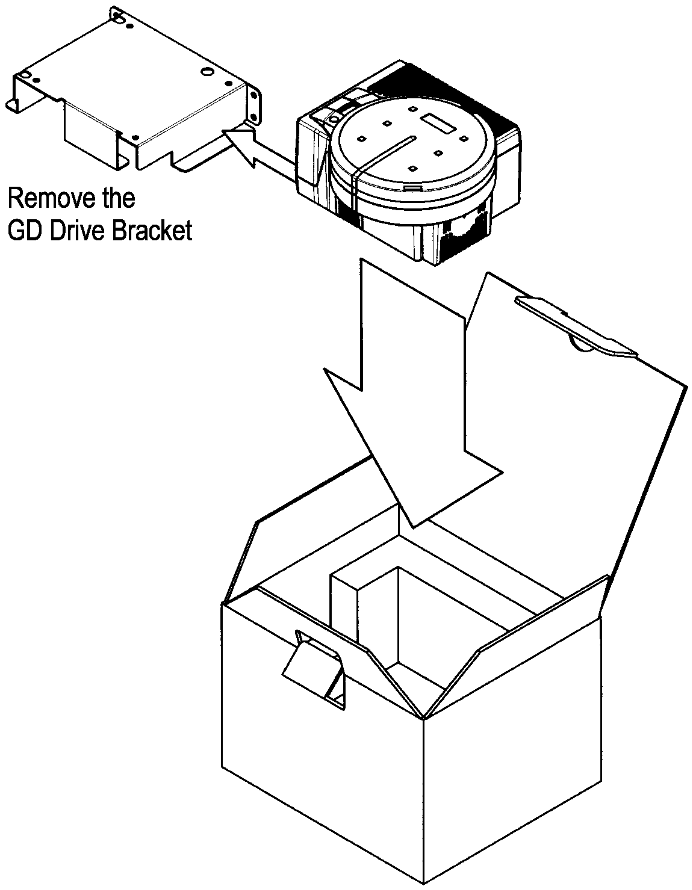
STOP IMPORTANT	When sending the Media Board for repairs, follow the specifications below and request repairs or send the Board to your retailer/the repair centre. Not following the specifications may result in the board not being accepted or in extra charges being made. Also, mistaken handling can damage or result in loss of parts. • Be sure to use the special purpose carton box included with this product. • Do not remove the Key Chip. Send the board with the Key Chip attached. • Undo the 10 screws holding the Media Board to the Main Board and pack the Media Board. Do not carry out any disassembly or part removal other than that specified in this manual. • Pack the Media Board in the special purpose carton box as shown in the explanatory diagram. • The packing material in the carton box has a shock absorbing function. Be sure to use it when packing. Do not bend or fold the material in a direction other than that shown on the diagram. • Do not pack any wires, cables, or screws together with the Board. • Be sure to attach the special purpose carton box accessory sticker "843-✱✱✱✱B."



3.7. SHIPPING THE GD-ROM DRIVE



- When returning the GD-ROM DRIVE for repair or replacement, be sure to package it in the original card transit box - THERE ARE NO USER-SERVICEABLE PARTS INSIDE.
- Ensure the GD-ROM Disk is removed and the GD-ROM Drive Lid is replaced on the unit, with fixing screw, before packaging. Also, remove the GD-ROM Drive Bracket and store with the four screws for reuse.
- Failure to return the GD-ROM DRIVE in this manner may invalidate the warranty.



3.8. *ASSEMBLY INSTRUCTIONS*



- Perform the assembly by following the procedure herein stated. Failure to comply with the instructions, for example, inserting the plug into an outlet at a stage not mentioned in this manual can cause an electric shock
- Assembling should be performed as per this manual. Since this is a complex machine, erroneous assembling can cause damage to the machine, or malfunction to occur.
- Do not attempt to complete this work alone, a minimum of 2 people are required.



- Only QUALIFIED SERVICE PERSONNEL should carry out assembly.

When carrying out the assembly work, follow the procedure in the following sequence:

STEP 1: ASSEMBLE THE MACHINE

STEP 2: LEG-LEVELLING PROCEDURE

STEP 3: COIN HANDLING INSTALLATION.

STEP 4: CONNECTION TO THE POWER SUPPLY

STEP 5: ASSEMBLY CHECK

Note that the parts contained within the installation kit are required for the assembly work.



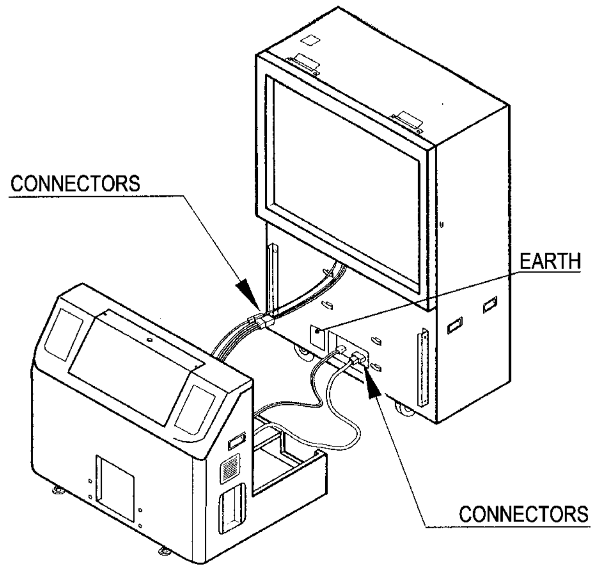
- Fit all fixings loosely first as detailed in step 1, then position all components before finally tightening fixings at step 4.

3.8.1. ASSEMBLE THE MACHINE

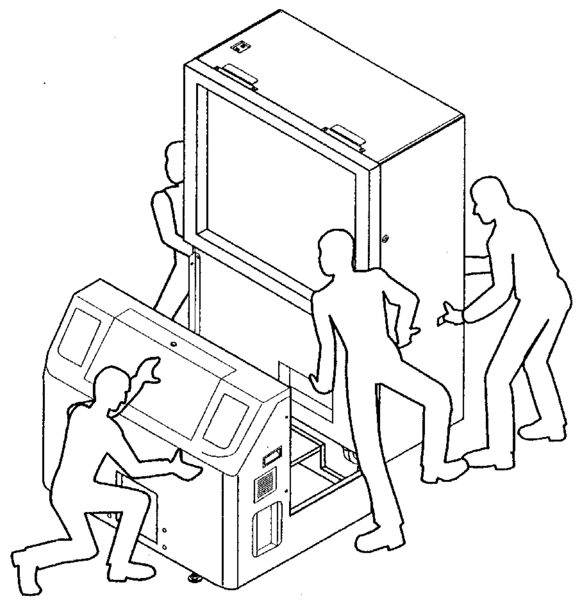
3.8.1.1.ASSEMBLE THE PTV

1. Place the PTV and PTV Cabinet in roughly their final position, in close enough proximity to make the connections shown.

It is imperative that the earth eyes are connected to the plate at the bottom of the PTV.



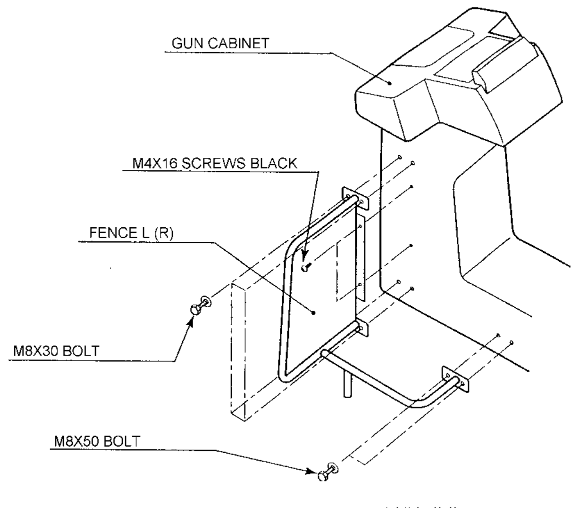
2. Lift the PTV forwards onto the PTV Cabinet, using a minimum of four workers to lift the PTV, plus a further worker to steady the PTV Cabinet. Use care during this exercise, as the PTV weighs in excess of 100kg.
3. Ensure the PTV is correctly seated on the PTV Cabinet.



(Actual machine may differ slightly from the illustration)

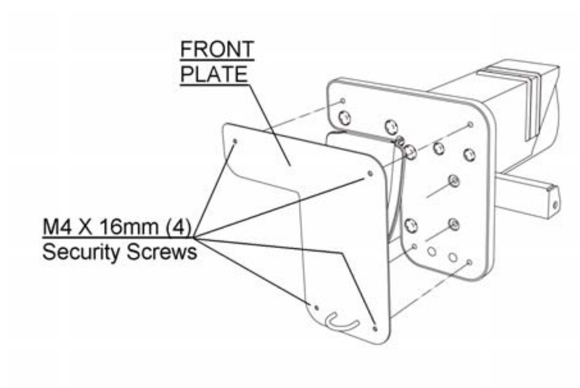
3.8.1.2.ATTACH THE GUARD RAILS

1. Remove the guardrails from their packaging.
2. Fit the rails to the gun cabinet as shown using the M8 bolts and the M4 screws provided.

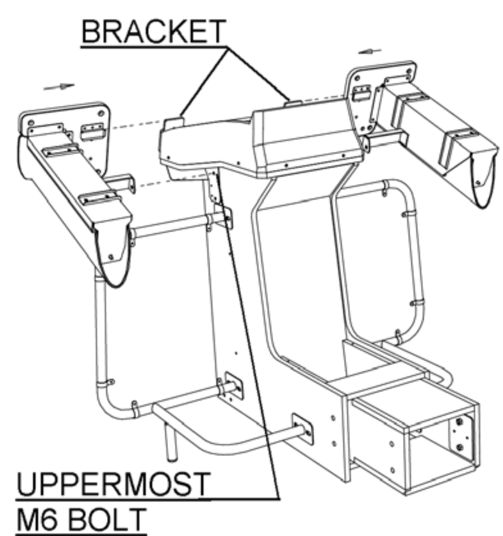


3.8.1.3. ATTACH GUN PANELS TO GUN CABINET

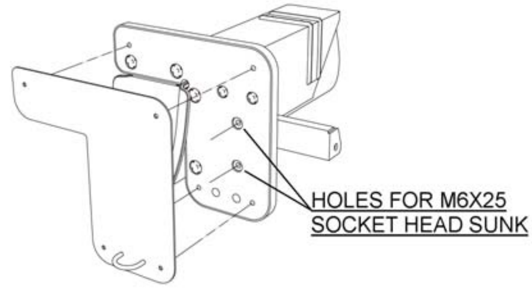
1. Take off from plates via 4 off M4 X 16mm security screws.



2. Remove the uppermost M6 Bolts either side of the coin tower.



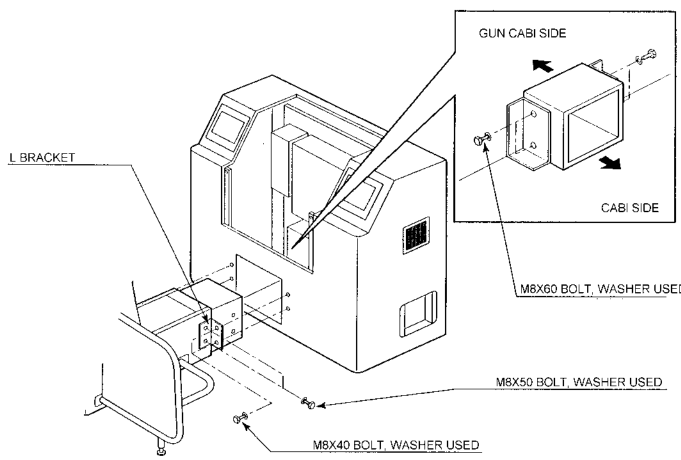
3. Secure Gun HOLSTERS to Bracket using (4) M6 x 25 Socket Head Countersink Black Bolts (Pt No.029-F00625-0B) [2 per Assy]



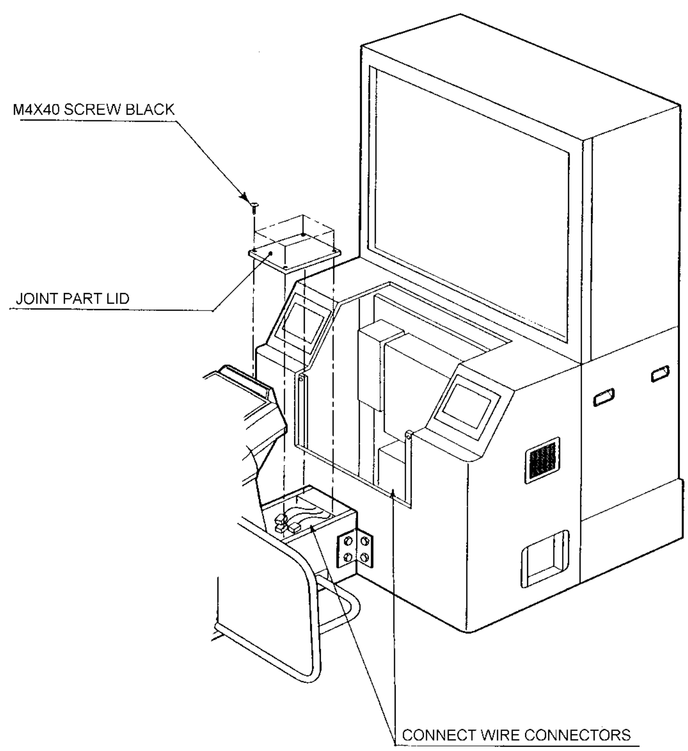
4. Refit all removed components / fixings

3.8.1.4.ATTACH THE GUN CABINET

1. After fitting the guard rails to the gun cabinet fit the gun cabinet to the main cabinet.
2. Slide the gun cabinet into the hole in the main cabinet as shown.
3. Fix the gun cabinet in position using the joint brackets and M8 bolts provided.

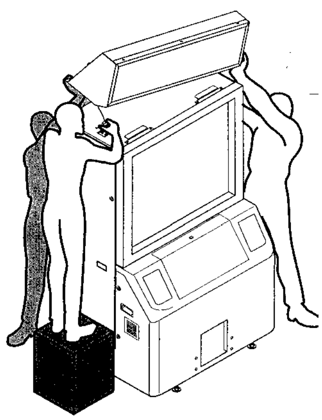


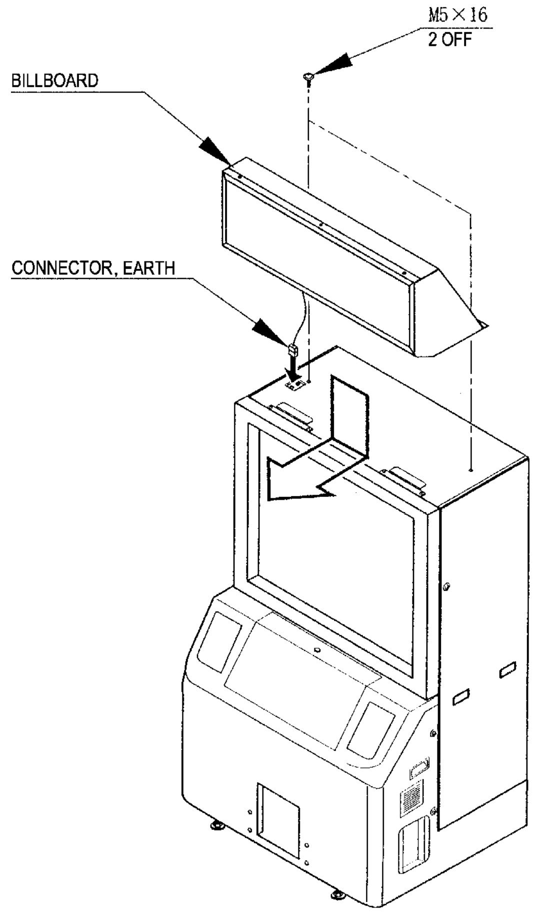
4. Once the cabinet is secure connect the connectors as shown.
5. Fit the cover in place using the M4x30 screws provided.



3.8.1.5. FIT THE BILLBOARD TO THE PTV

1. Fix the billboard to the PTV as shown.
2. Be sure to fit the connector from the billboard to the PTV. **It is imperative that the earth eye is connected to the top plate of the PTV.**
3. Place the billboard onto the PTV and slide it forward under the catches
4. Fix the billboard in position using the 2 off M5x16 screws provided





When fitting the Billboard, be sure to use three people for safety.

3.8.2. LEG-LEVELLING PROCEDURE



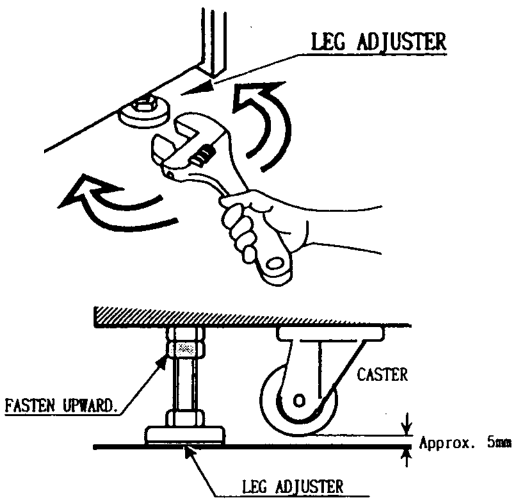
- This operation requires 2 people. Ensure that all leg adjusters are in contact with the floor otherwise the machine may move and cause injury.

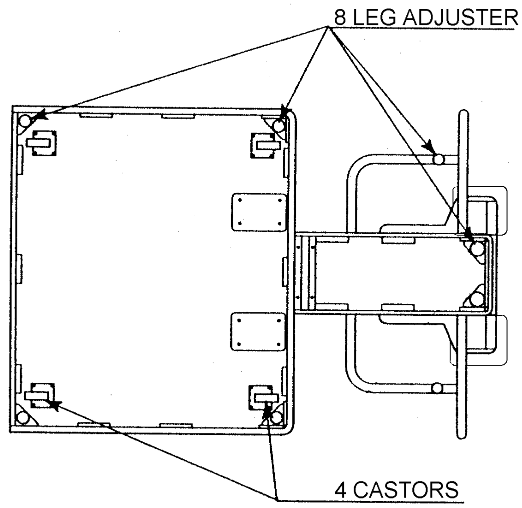


- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

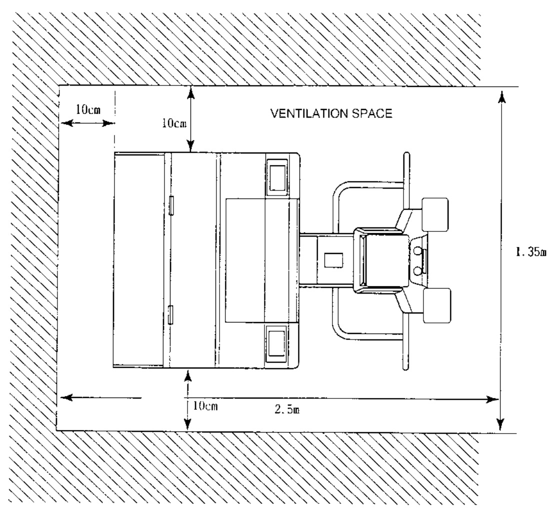
This machine has 4 castors and 8 leg adjusters. When the installation position is decided, unscrew the leg adjusters so that they raise each castor a minimum of 5mm from the floor. Make sure the machine is level.

1. Move the machine to its final position.
2. Adjust the leg adjusters as shown until the castors are approximately 5mm off the floor and the machine is level.





Ensure adequate ventilation is maintained as detailed below

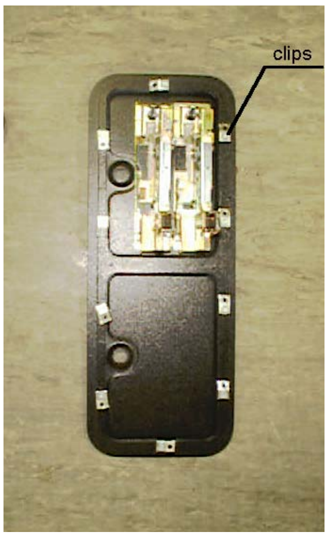


3.8.3. COIN HANDLING INSTALLATION.

STOP IMPORTANT

- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

When fitting the coin mechanism to the door please refer to the specific manufacturers installation instructions for that coin mechanism. To fit the door to the machine, follow the procedure below.



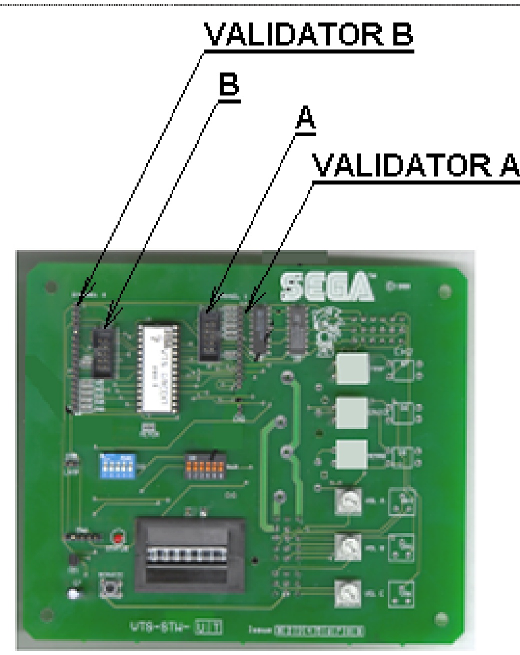
- Loosen all of the bolts on the frame that secure the clips.
- Turn all clips in towards the door.



- Position the door into the aperture in the machine.
- Turn the clips around so that they will hold the door in the machine.
- Tighten all of the bolts.

3.8.3.1.WIRING CONNECTIONS.

COIN MECH	LOOM	INSTALLATION
C220B	LM1006IDC LM1006LAMP-0.1	• Attach the lamp holder to the bracket on the coin return button. • Attach one 15-way connector to the C220 coin mech. • Attach the other 15-way connector to Validator A on the credit board. • Attach the 2-way connector to ‘LAMP’ on the VTS board.
GENERIC MECHANICALS	LM1008 LM1008-LAMP	• Fit the two lamp holders behind the coin return buttons. • Attach the blue cable and orange cable to one mech’s microswitch switch. • Attach the blue/green cable and orange/green cable to the other mech’s microswitch. • Attach the 2-way mate and lok plug to the 2-way mate and lok cap provided. • Attach one 15-way connector to Validator A and the other to Validator B on the credit board
MARS MS111B1 MARS ME115	LM1007 LM1008-LAMP	• Fit the lamp holder to the bracket behind the coin return button. • Fit one of the 13-way connectors to the coin mech. • Fit the other 13-way connector to Validator A on the credit board. Note the 13-way connector is keyed and this key must coincide with the key on the credit board.
SECI, C120, SR3	OWN LOOM AND LM1006LAMP-0.1	• Attach the lamp holder to the bracket on the coin return button. • Attach the 2- connector to ‘LAMP’ on the VTS board. • Attach the validator’s own loom to position A on the credit board



VTS credit board assembly

3.8.4. CONNECTION TO THE POWER SUPPLY



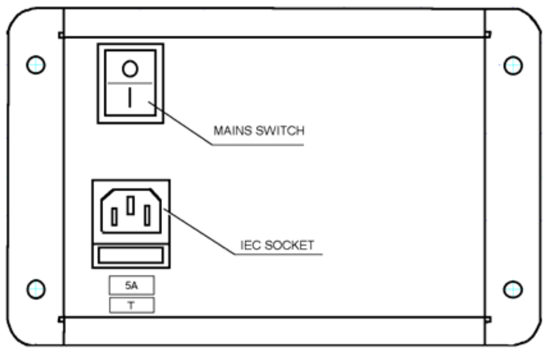
- This operation may only be carried out once the machine has been completely assembled.



- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

Once the machine has been fully assembled and fixed in position it is ready to be connected to the power supply

1. The socket outlet shall be installed near the equipment and shall be easily accessible.
2. Insert the IEC plug into the IEC socket on the cabinet.
3. Insert the mains cord into the wall outlet
4. Switch on the power at the wall outlet.
5. Switch on the mains switch on the AC unit of the machine.



3.8.5. ADJACENT CONTROL INTERFERENCE PREVENTION

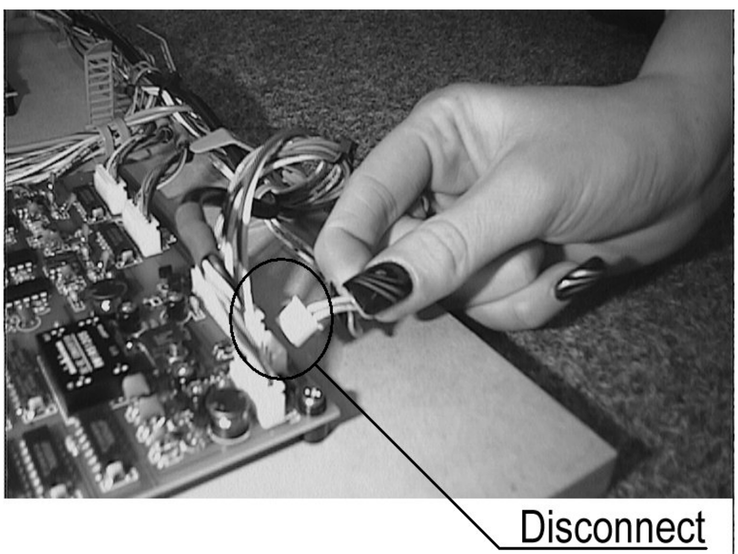
WARNING	• Be sure that the machine is not connected to the mains supply before attempting this operation. • Be careful not to damage wiring. • The Game Board area should be accessed only if necessary.
STOP **IMPORTANT**	• Only QUALIFIED SERVICE PERSONNEL should carry out this operation

When games with the same or similar infrared sensing system are installed side by side, interference may occur causing malfunction or inaccuracy of the sensing system in adjacent games.

A removable wire harness controls the operating frequency of the gun sense system. Removal of this harness switches from the default frequency to an alternate one.

Where game machines of the same or similar type are installed side by side, remove the jumper harness (SPY-60010UK) from every other machine in the line.

1. Turn off the power.
2. Remove the Game Board as detailed in section 3.13 of the Service Manual (the work can be completed with the Game Board in place but access is limited).
3. Locate the Sensor Board and remove SPY-60010UK WIRE HARNESS HIGH FREQUENCY JUMPER as required.



3.9. ASSEMBLY CHECK

STOP
IMPORTANT

- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.

In the TEST MODE, ensure that the assembly has been made correctly and IC Board is satisfactory (refer to Section).
In the test mode, perform the following test:

3.9.1. MEMORY TEST

When "MEDIA BOARD TEST" is selected from the System Test Mode Menu Screen the Game Board memory is automatically tested. If the display beside each memory reads "GOOD", the Game Board is functioning correctly.
Also, when "SYSTEM INFORMATION" is selected, Main Board and Media Board data for the Game Board are displayed. If data is displayed correctly, the Game Board is functioning correctly.

```
MEDIA BOARD TEST

VERSION   ****
STATUS    GOOD
CHECKING 100%

SYSTEM TEST
 DIMM0      - GOOD
 DIMM1      - GOOD
 IC34,35S   - GOOD
 IC10,11S   - GOOD
 GD DRIVE   - GOOD
 -- COMPLETED --

PRESS TEST BUTTON TO EXIT
```

MEDIA BOARD TEST screen

```
SYSTEM INFORMATION

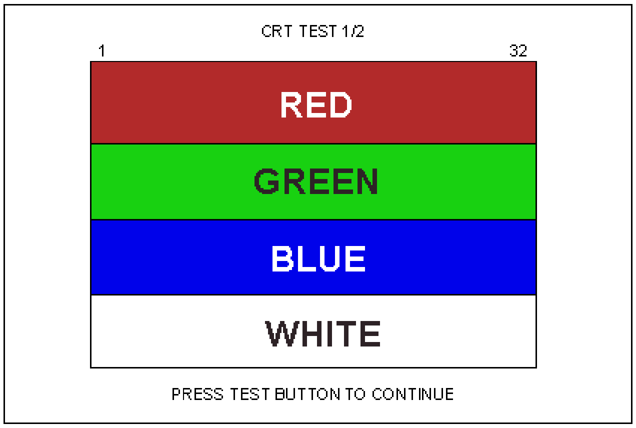
MAIN BOARD
  REGION              ****
  BOOT VERSION        ****
  QC FIRM VERSION     ****
  SC FIRM VERSION     ****
  SERIAL NO. ****************

MEDIA BOARD
  DIMM BOARD + GDROM
  MEMORY SIZE         512MB
  FIRM VERSION        ****
  SERIAL NO. ****************

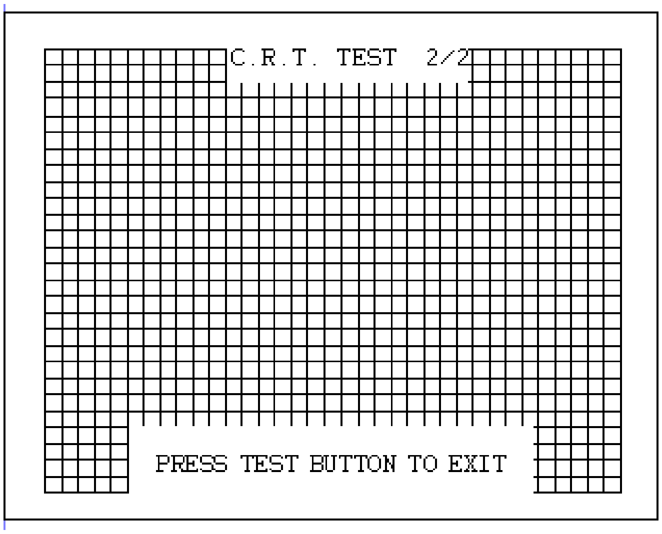
PRESS TEST BUTTON TO EXIT
```

SYSTEM INFORMATION screen

3.9.2. C.R.T. TEST



In the TEST mode menu, selecting C.R.T. TEST allows the screen (on which the moniter is tested) to be displayed. Although the moniter adjustments have been made at the time of shipment from the factory, make judgment as to whether an adjustment is needed by watching the test mode screen. If it is necessary, adjust the moniter by referring to Monitor manual.



3.9.3. INPUT TEST

```
                    INPUT TEST

                  PLAYER1        PLAYER2
    START           OFF            OFF
    TRIGGER         OFF            OFF
    GRIP            OFF            OFF
    GUN-X           00             00
    GUN-Y           00             00
    SCREEN-IN       OUT            OUT
    SERVICE         OFF
    TEST            OFF



  PRESS TEST AND SERVICE BUTTON TO EXIT
```

Selecting the INPUT TEST on the game test mode menu screen causes the screen (on which each switch is tested) to be displayed. Press each switch. If the display beside each switch indicates "ON," the switch and wiring connections are satisfactory.

3.9.4. OUTPUT TEST

Select OUTPUT TEST from the menu in the test mode to cause the screen (on which each lamp and wiring connections are tested) to appear. Ensure that lamp light up satisfactorily.

```
                 OUTPUT TEST

        START1 LAMP        OFF
        START2 LAMP        OFF

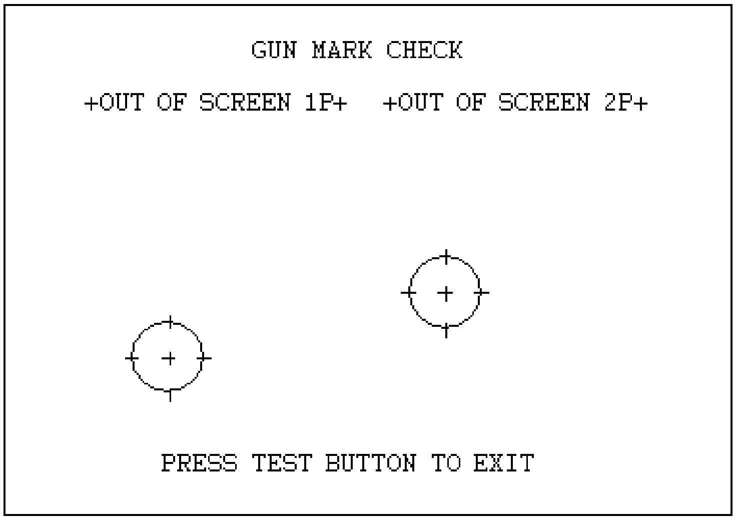



      -> EXIT


        SELECT WITH SERVICE BUTTON
          AND PRESS TEST BUTTON
```

3.9.5. GUN ADJUSTMENT

Before starting the operation, play the game by yourself and make sure that the gun readjustment is not needed and that you can play the game without a problem. Although completed at the factory, the gun adjustment may be necessary because after the adjustment the product has been disassembled for packing and shipping.



Perform the above inspections also at the time of monthly inspection.
As for the gun adjustment described in above, confirm weekly that the gun is properly adjusted.

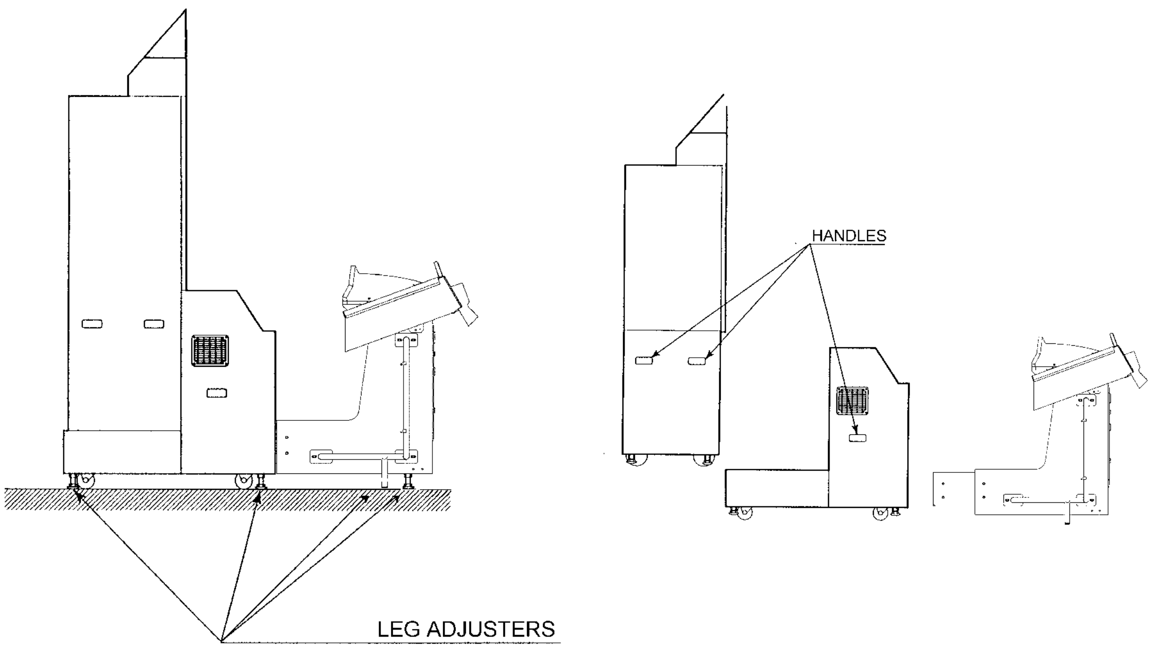
3.10. MOVING THE MACHINE



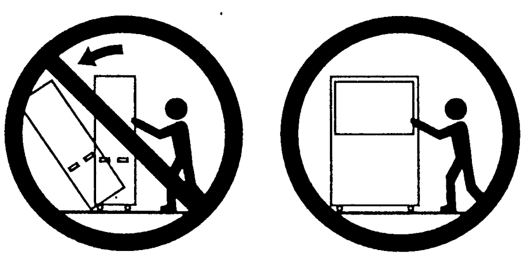
- When moving the machine, be sure to remove the plug from the power supply. Moving the machine with the plug inserted can cause the power cord to be damaged, resulting in a fire or electric shock.
- When moving the machine, retract the leg adjusters fully and ensure the casters make contact with the floor. During movement pay careful attention so that the casters or leg adjusters do not damage any other cabling laid on the floor. Such damage could result in a fire or electric shock.



- Only QUALIFIED SERVICE PERSONNEL should carry out this operation.



- Do not handle the machine by its plastic parts as this may result in damage or injury.



3.11. FUSES



- Never touch places other than those specified. Touching places other than those specified can cause electric shock and short circuit. Disconnect the machine from the supply before attempting the replacement of any fuse.



- Only QUALIFIED SERVICE PERSONNEL should replace FUSES.
- Only replace fuses with ones of the same value and type.

There are a number of fuses used on this machine to protect the user and the machine from damage. Only replace the fuse once you have removed the cause of its failure. Detailed below is a list of the fuses used, their location and if relevant PCB reference:

PART NUMBER	LOCATION	TYPE & DETAILS	QTY PER COCKPIT
514-5078-6300	838-11856CE-02 (F1)	5x20 HRC SB 6300mA	1
514-5078-6300	838-13616 (F1)	5x20 HRC SB 6300mA	1
514-5078-5000	IEC INLET (EP1302)	5x20 HRC SB 5000mA	1

There are also fuses located on the Monitor PCB. Refer to the relevant Monitor manual supplied to reference these fuses.

3.12. REPLACEMENT OF FLUORESCENT LAMP AND OTHER LAMPS

WARNING

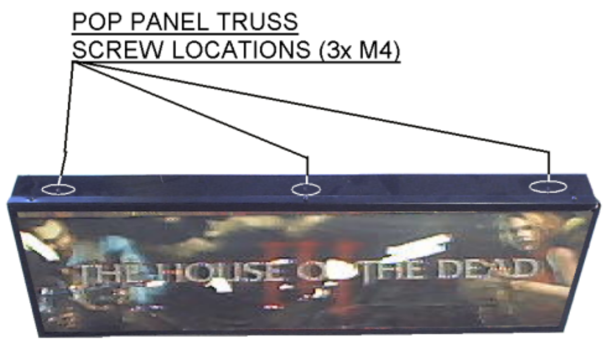
- Never touch places other than those specified. Touching places other than those specified can cause electric shock and short circuit. Disconnect the machine from the supply before attempting the replacement of any lamp.
- Use a step to perform work on the Billboard. Ensure the step is secure to avoid injury.
- The Fluorescent Lamp can get hot and cause burns. Allow the Lamp to cool before touching it.

STOP
IMPORTANT

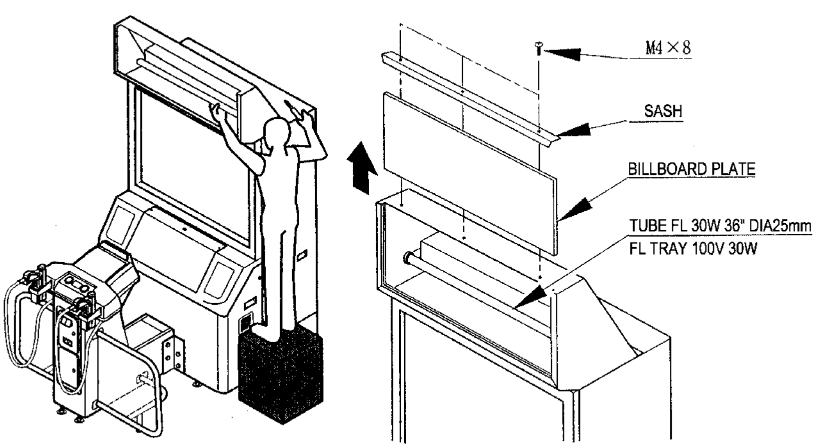
- Only QUALIFIED SERVICE PERSONNEL should replace lamps.

3.12.1.FLUORESCENT LAMP REPLACEMENT

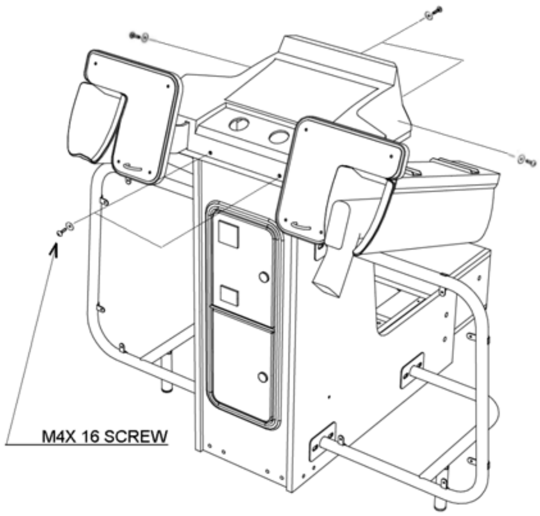
1. Remove Pop Panel (if fitted) and associated bracket by removing 3 x M4 Truss Screws.



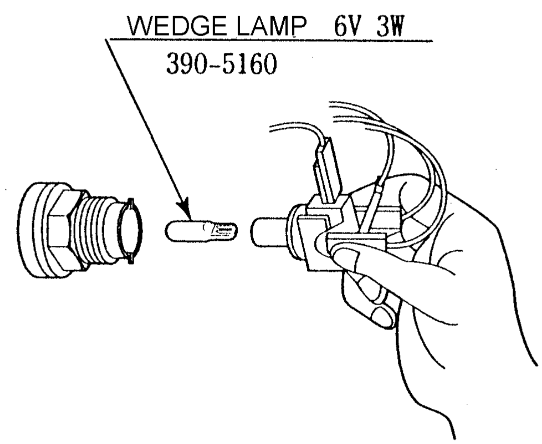
2. Remove the M4 Truss Screws to remove the Sash. Withdraw the Billboard Plate upwards.
3. To remove the Fluorescent Lamp, first remove both end connectors. Then withdraw the Lamp from the two clips, using care to avoid breakage.
4. Replacement of Lamp is in reverse order of removal.



3.12.2. LAMP REPLACEMENT



1. Remove the control panel cover as shown by removing the 8 screws holding it in position.
2. Carefully lift the control panel cover up until it is possible to disconnect the wire harness plugs attaching the start switches to the cabinet.
3. Turn the control panel cover over and remove the micro switch from the start switch as shown below.
4. Remove and replace the wedge lamp.
5. Reassemble the control panel cover to the gun cabinet.



3.13. TROUBLESHOOTING

STOP
IMPORTANT

- Only QUALIFIED SERVICE PERSONNEL should carry out these procedures.

If a problem occurs, first check the wiring connections.

PROBLEMS	CAUSE	COUNTERMEASURES
When the main switch is turned ON, the machine is not activated	The power is not ON.	Firmly insert the plug into the outlet.
	Incorrect power source/voltage.	Make sure that the power supply/voltage are correct.
	AC Unit CIRCUIT PROTECTION DEVICE (i.e. fuse) was activated due to an instantaneous overcurrent.	First, remove the cause of overcurrent and reinstate the circuit protection device to its original status. Then identify the cause of the fault on the item that caused the overcurrent & fix.
The colour image on the screen is incorrect	Incorrect monitor adjustment.	Make appropriate adjustments. SEE SECTION 3.9.
The on-screen image of the monitor sways and/or shrinks	The power source and voltage are not correct.	Make sure that the power supply and voltage are correct.
Sound is not emitted	Sound volume adjustment is not correct.	Adjust the volume setting on the VTS bracket. SEE SECTION 5.1.1
	Malfunctioning BD and Amp.	Perform Sound Test to check it. SEE SECTION 5.2.5
	Connector connection is incorrect	Check connector connection from Base to Speaker
Controller operation is not satisfactory	Sighting is inaccurate due to environmental conditions, etc.	Adjust the gun sighting alignment. SEE SECTION 3.14
	Micro-switch malfunctioning	Replace the micro-switch. SEE SECTION 3.14
	Sensor BD is malfunctioning	Replace the Sensor BD. SEE SECTION 3.14
The fluorescent lamp does not light up	Fluorescent lamp needs replacement	Replace the fluorescent lamp. SEE SECTION 3.12
	The connector is disconnected	Check connector connections in the billboard case.

3.14. CONTROLLER UNIT (SHOTGUN)

STOP IMPORTANT

- Only QUALIFIED SERVICE PERSONNEL should carry out these procedures.

CAUTION

- In order to prevent an electric shock and short circuit, be sure to turn power off before performing work by touching the interior parts of the product.
- Be careful not to damage the wires. Damaged wires may cause electric shock or short circuit or present a fire risk.
- Be very careful when soldering. Handling a soldering iron carelessly may result in a fire or a burn.
- When securing the plastic-made parts, do not excessively fasten screws and nuts. Failure to observe this may damage the parts and cause injury due to fragments resulting from damage.

STOP IMPORTANT

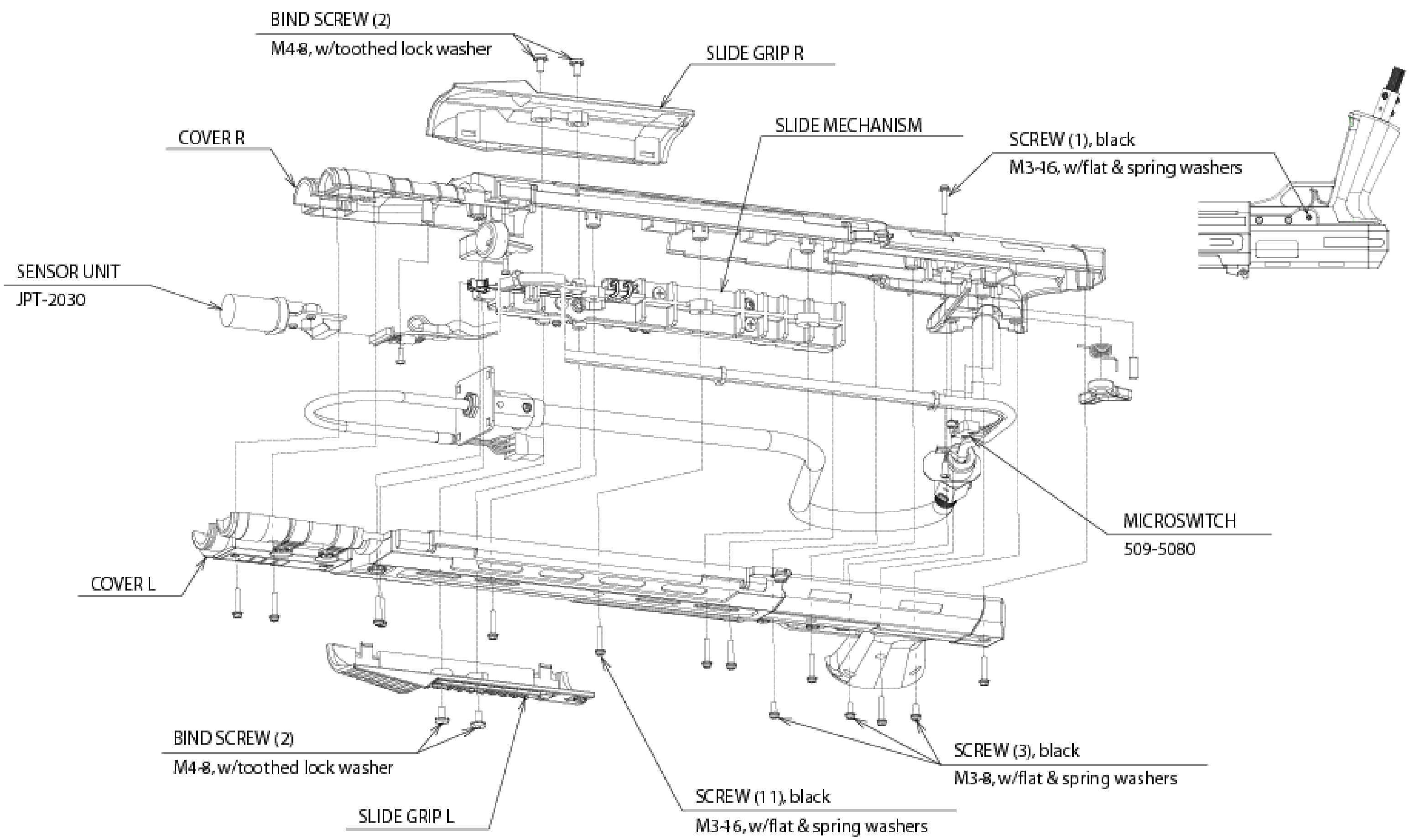
- Do not cut the tie belt securing the wires in the Control Unit (Shotgun). Cutting the tie belt may cause malfunctioning of the wire connection. If you cut the tie belt when replacing the wire etc., be sure to secure the wires using a new tie belt as before
- After removing 4 bind screws once, retighten them by using the designated threadlocking agent (Part Number: 090-0012). If the threadlocking agent is not used, the reassembled shotgun may rattle or come apart.
- Use only the threadlocker designated in this manual. Use of other threadlocking agents may cause chemical reactions that could damage the screws or part's surface.

In the cases where the gun's operation is not satisfactory or the gun sight deviates from the direction in which the control unit is pointed, the gun's interior parts may have been damaged. Replace the parts by disassembling the gun in the following procedure: Also, be sure to perform sighting check in the test mode when the gun parts are replaced.

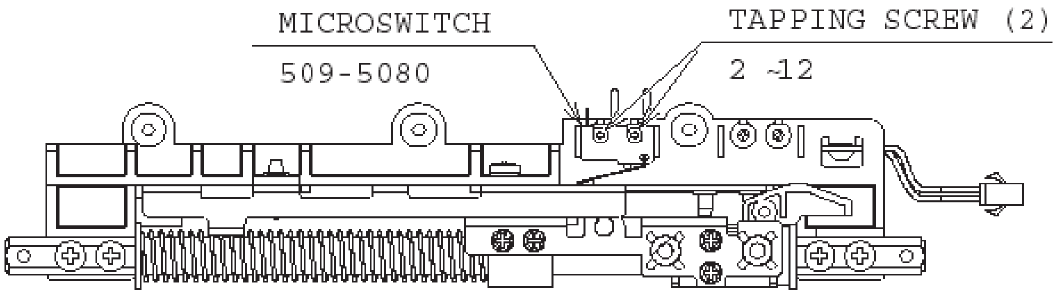
REPLACING THE MICROSWITCH

To replace parts in the Shotgun, it is necessary to separate the two halves of the outer case cover. Internal parts are inserted directly into the right side of the cover, so the procedure should be carried out with the right half downmost.

1. Turn the power OFF.
2. Remove the 2 BIND screws from each side and remove the left and right Slide Grips.
3. To separate the left and right halves of the cover, remove the 3 (M3X8) screws and the 12 (M3X16) screws. Be aware that 1 (M3X16) screw is in the right side of the cover. Therefore, remove the 1 screw on the right half of the cover first, before removing the rest of the screws, with the right half downmost.
4. With the right half downmost, remove the left half.
5. Pull the trigger side microswitch out of the right cover.
6. Remove the solder and remove the microswitch.
7. The pump action side microswitch is contained in the slide mechanism. Pull the slide mechanism out from the right cover.


BIND SCREW (2)
M4-8, w/toothed lock washer
SLIDE GRIP R
COVER R
SLIDE MECHANISM
SCREW (1), black
M3-16, w/flat & spring washers
SENSOR UNIT
JPT-2030
MICROSWITCH
509-5080
COVER L
BIND SCREW (2)
M4-8, w/toothed lock washer
SLIDE GRIP L
SCREW (11), black
M3-16, w/flat & spring washers
SCREW (3), black
M3-8, w/flat & spring washers

8. Remove the 2 tapping screws, and remove the microswitch from the slide mechanism.
9. Remove the solder and remove the microswitch.



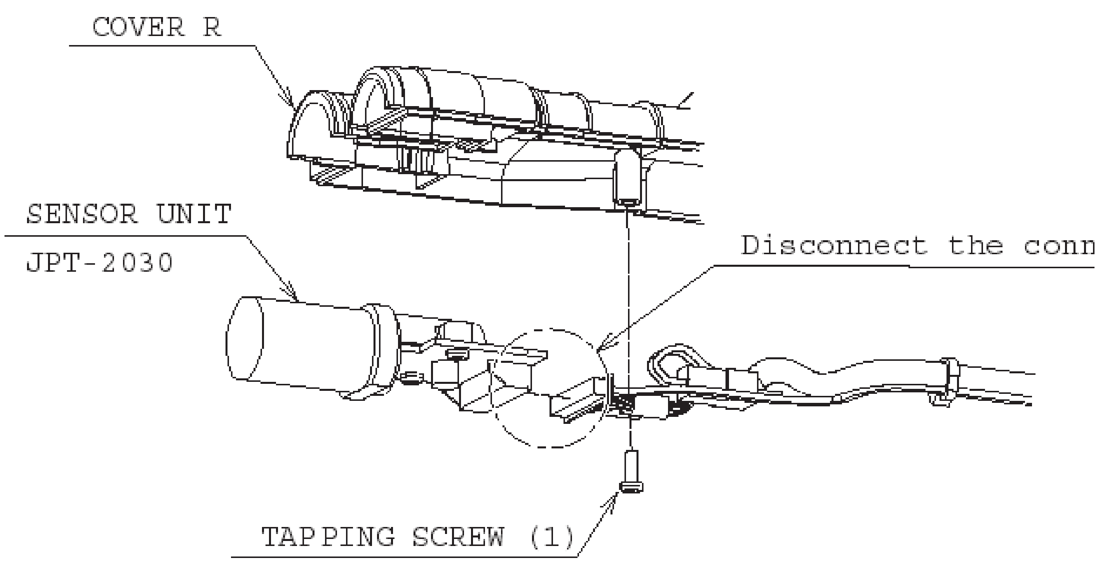
SLIDE MACHANISM

1. Solder in the new microswitch, and assemble the Shotgun. When assembling, be careful not to over-tighten the screws. Be especially careful when tightening the tapping screws.
2. Operate the trigger and grip, and make sure that the microswitch turns ON/OFF correctly.

REPLACING THE SENSOR UNIT

Follow instructions 1. through 4. of "Replacing the Microswitch" up to removing the left side cover.

1. Disconnect the connector and remove the Sensor Unit.
2. Remove the tapping screw, if required to gain better access.



3.15. GAMEBOARD



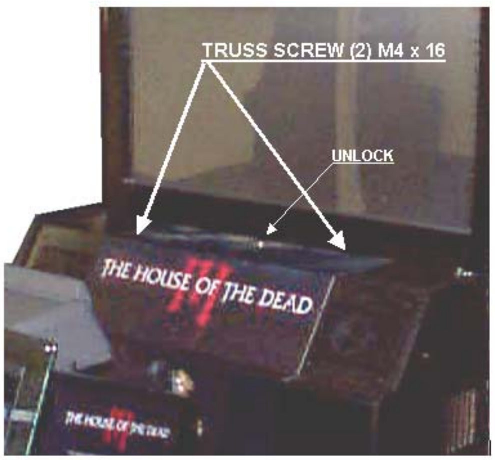
- Turn off the mains power and remove the power cord before opening the machine.
- To prevent risk of shock or fire, be careful not to damage any wiring.



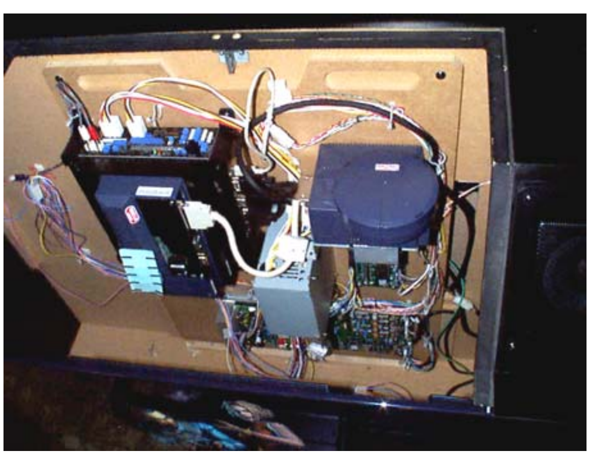
- The GAME BOARD should not require any work to be carried out upon it. All settings and tests can be achieved without access to the GAME BOARD.
- Take anti-static precautions to avoid damaging the electronic parts.
- All work to be carried out by QUALIFIED SERVICE PERSONNEL

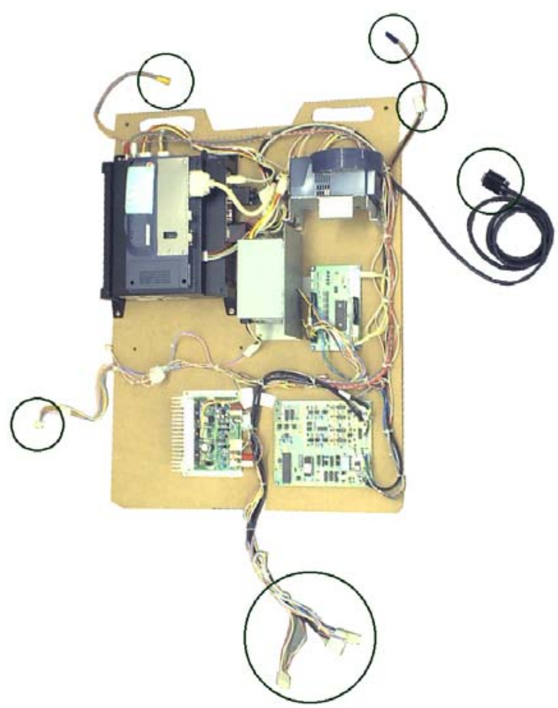
The GD-ROM Service Manual supplied with this product instructs you to remove the Key Chip when shipping the CHIHIRO Board. However, this product employs a dedicated CHIHIRO Board, therefore do not disassemble the CHIHIRO Board or remove the Key Chip.

3.15.1.REMOVING THE BOARD



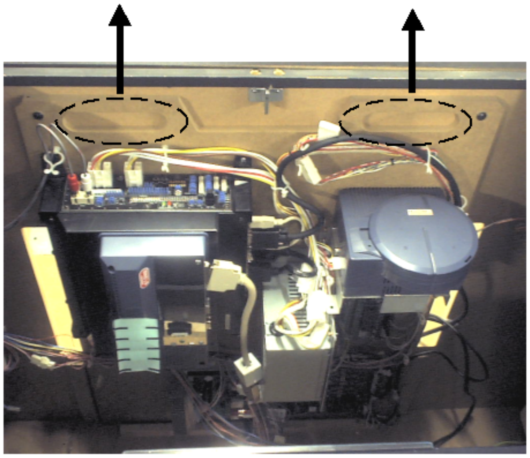
1. Turn off the power.
2. Remove the two screws and unlock the LID UPPER.
3. Disconnect all harnesses connected to the CHIHIRO Main Board assembly as circled below.



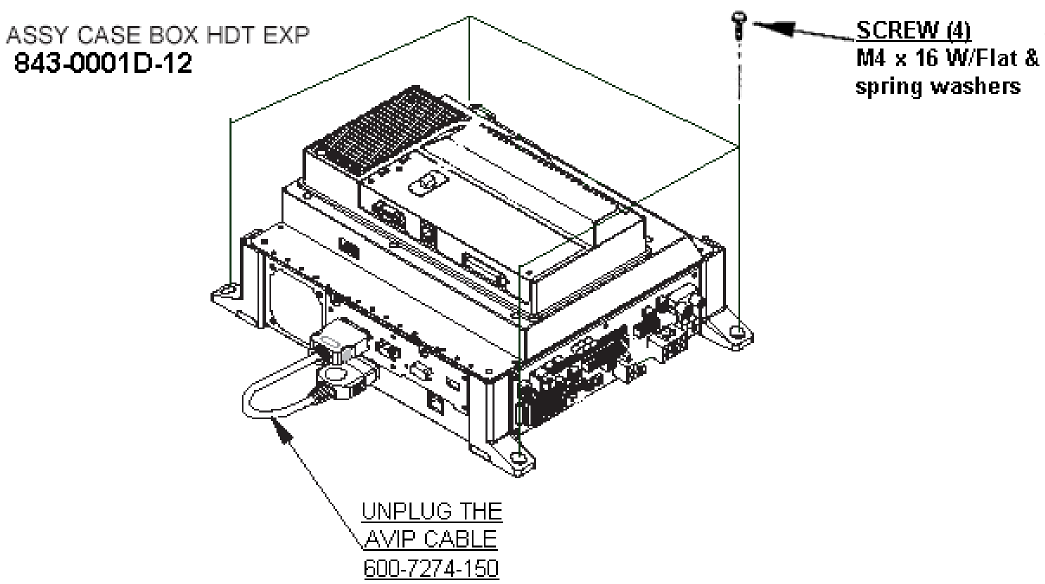


4. Remove the two screws securing the base to the cabinet and withdraw the main board assembly upwards out of the cabinet. using the 2 hand holds in the board.





5. Pull the ASSY MAIN BD out of the Cabinet and set it on a level surface before continuing.
6. Unplug all connectors connected to the Chihiro Board.
7. Unplug the GD Cable connector on the side of the Media Board on the Chihiro Board.
8. Unplug the AVIP Cable connected to the Chihiro Board. This is because the AVIP Cable is packed with it when the Chihiro Board is transported.
9. Remove the 4 screws and remove the Chihiro Board from the Base.

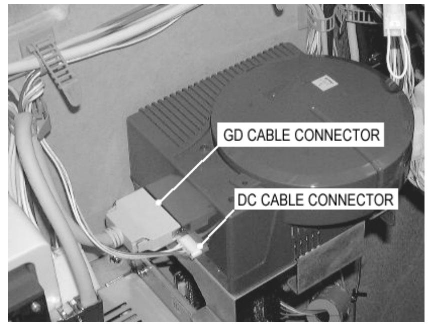


3.15.2.REMOVING THE GD-ROM DRIVE

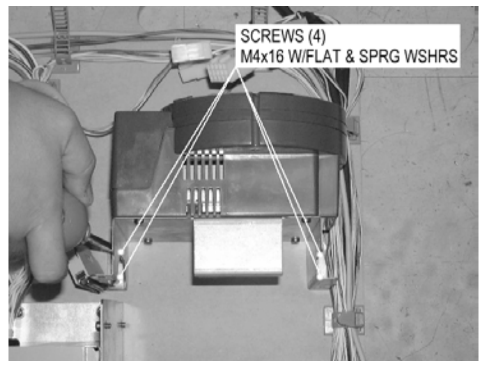
Take out the ASSY MAIN BD from the PTV cabinet and remove the GD-ROM Drive from the ASSY MAIN BD as follows:

i. Following the above procedure (steps 1 to 5), take out the ASSY MAIN BD.

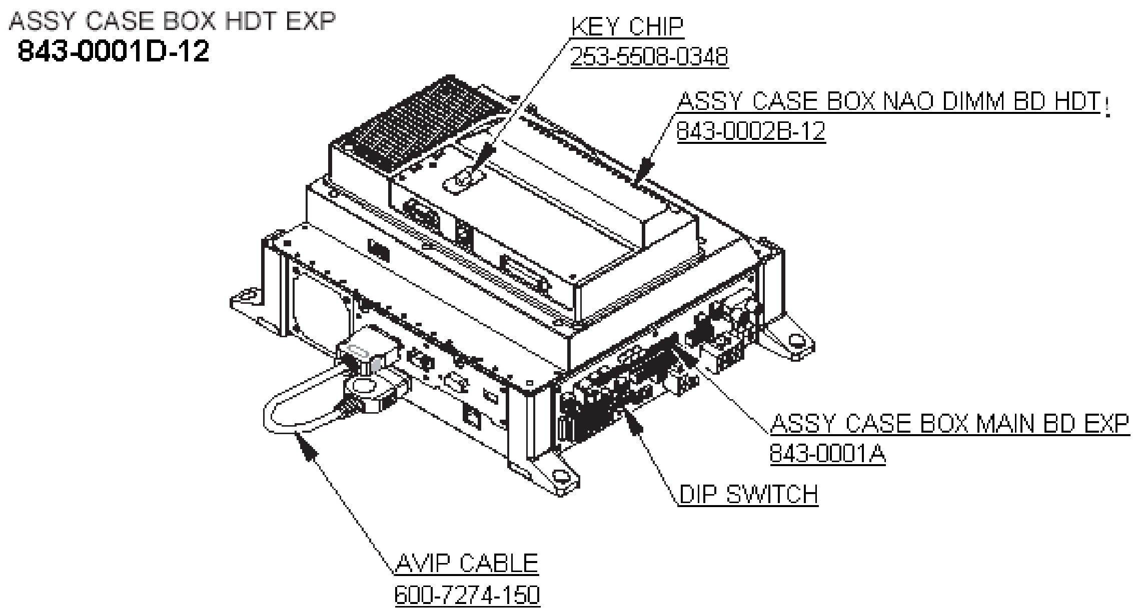
2. Remove the GD cable connector and the power cord connector from the GD-ROM Drive.



3. To remove the GD-ROM Drive, undo the four screws shown.

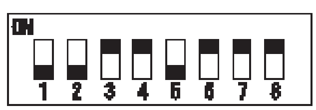


3.16. COMPOSITION OF THE GAME BOARD



DIP SW SETTING

Use this product with the DIP SW settings shown in the figure below.



3.17. PERIODIC CHECK AND INSPECTION

The items listed below require periodic check and maintenance to retain the performance of the machine and ensure safe operation:



- Be sure to check annually to see if the power cords are damaged. The plug is securely inserted and that there is no dust in the interior of the machine or between the socket and the power cord. Using the product in an unclean condition may cause a fire or electric shock.



- Only QUALIFIED SERVICE PERSONNEL should carry out periodic checks.

DESCRIPTION	WHAT TO CHECK	INTERVAL
MONITOR / PROJECTOR	Clean screen Check adjustment	Weekly Monthly
GAME BD	Memory Test Game Assignments	Monthly Monthly
INTERIOR	Clean (**Do Not** use water jet)	Annually
POWER SUPPLY CORD	Check condition	Annually
CABINET SURFACE	Clean (**Do Not** use water jet)	As required
CONTROL PANEL	Lamp operation Check switch operation	Monthly Monthly
CONTROLLER (GUN)	Clean Check sighting Check switch operation	As required Weekly Monthly
COIN MECHANISM	Check SW (If Fitted)	Monthly

4. HOW TO PLAY

Use this section to confirm the machine is operating correctly; if the machine doesn't operate as described there may be a fault.

While power is connected, the billboard is continuously lit and demonstration footage and ranking data are displayed on the screen. This 'advertise' mode will be accompanied by sound from both speakers unless set otherwise in the TEST mode.

The 1P and 2P start buttons have integral lights that flash when a credit is inserted.

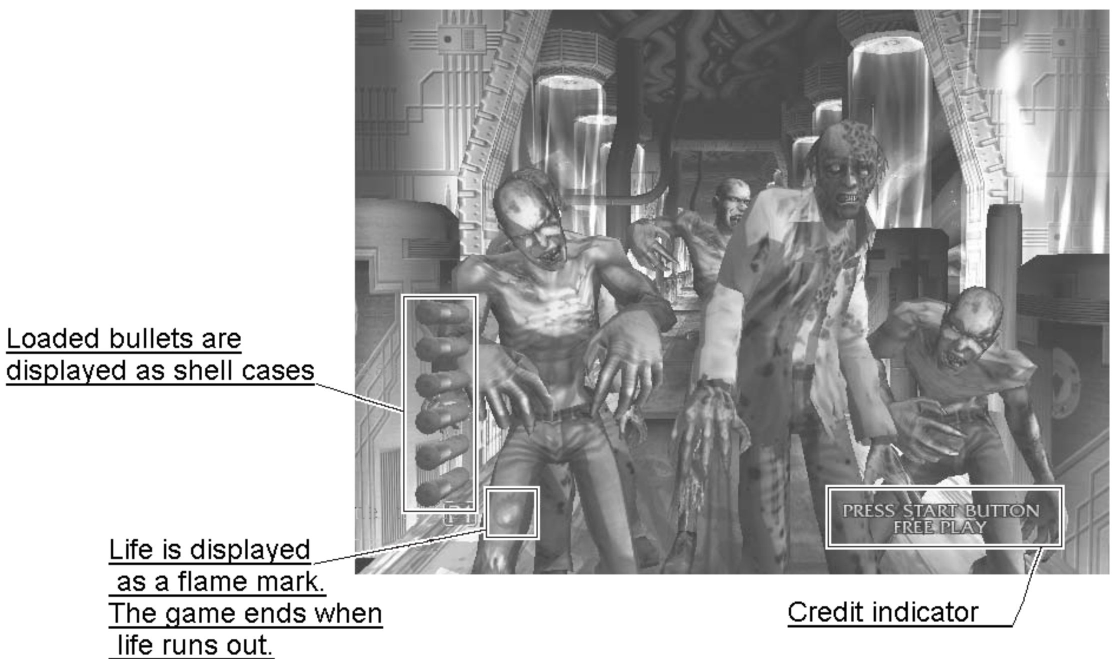


4.1. GAME CONTENTS

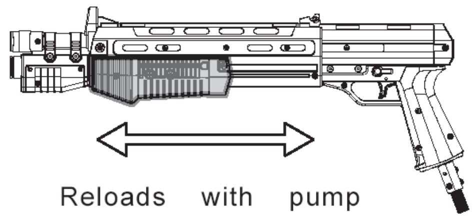
4.1.1. GAME OUTLINE

1. Insert a coin and the credit indicator below the screen will count up. When enough coins have been entered for one play, the "INSERT COIN(S)" message below the screen will change to "PRESS START BUTTON", and both START buttons will flash.
2. A player plays on the left or the right by pressing the start button on that side.
3. Pressing the start button begins the game.
4. When the game starts, the stage title is displayed and a demo plays before switching over to game play.

- Life and loaded bullets remaining are shown at the bottom left of the screen for the player on the left (Player 1). Life and loaded bullets remaining are shown at the bottom right of the screen for the player on the right (Player 2).



- Firing six rounds empties the weapon and displays the "RELOAD" instruction on the screen. Players load the shotgun clip by pump action. If some bullets remain, pumping the shotgun will fully reload the gun. Reloads with pump action!

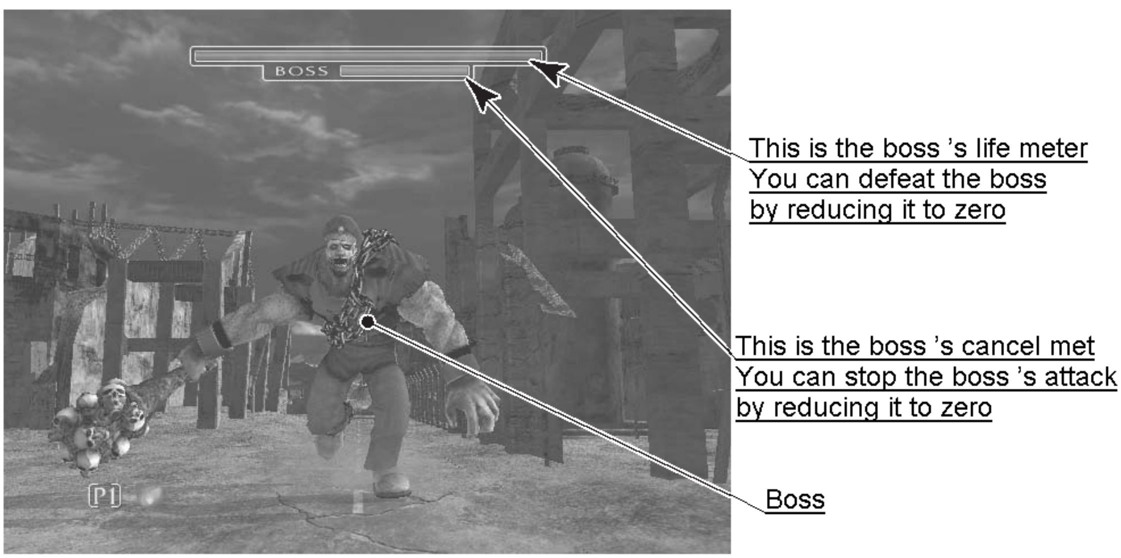


- Players can defend themselves against knives, oil drums and barrels thrown by enemies by shooting them.

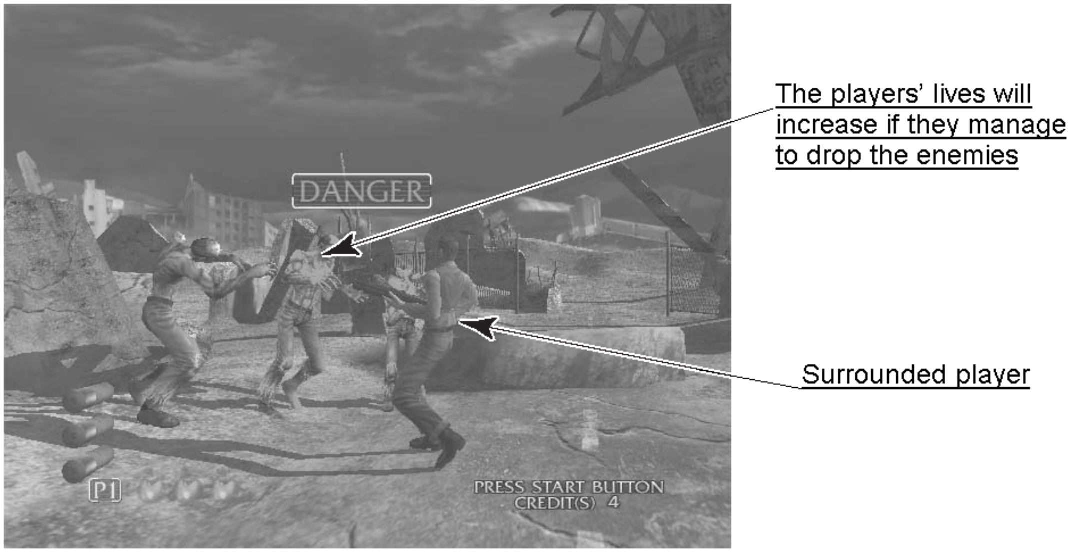
- Shooting the background will sometimes cause items to appear. Players grab them by shooting them. Grabbing items will increase a player's score or restore life.

- When life reaches zero the game ends.

A unique boss awaits the players at each stage. The bosses appear different on each stage. Players defeat a boss by reducing its Life Meter to zero. In addition, when a boss begins to attack the Cancel Meter appears. Players can stop the boss's attack by reducing this meter to zero.



As players advance through the game, events will occur where enemies surround one player. The players' lives will increase if the other player succeeds in rescuing the surrounded player.



A player can join a game in progress at any time by inserting coins and pressing the start button. In addition, the start button on the side where no one is playing will continue to flash if enough credits remain. A second player can join the game by pressing the flashing start button.

"CONTINUE" is displayed when life drops to zero. A player may continue by inserting sufficient coins and pressing the start button. When there are enough credits for another game, a player can continue by pressing the start button.

After completing the game, players can enter their names on the ranking display if their scores are among the top ten.

4.1.2. ITEMS



"Medical Kit"
Increases life by one.



"Mini magician"
Increases a player's score.



"Gold Coin"
Increases a player's score.



"Golden Frog"
Increases a player's score.



"Warped Coin"
Increases a player's score.



"MechaZombie"
Increases a player's score.



"Crystal Coin"
Continuously increases a player's score as it is shot.

4.1.3. PLAY HINTS

✱ Aim for the head!
On any stage, the weak point of enemy characters other than the boss is the head. Shooting the head will significantly decrease the enemy's life. The shotgun pellets spray out in a wide range, so players can cause more damage and drop an enemy more quickly by aiming at its head.

✱ Choose your favourite route!
The routes in stages (Stage 1, Stage 2, Stage 3, Stage 4) branch according to the players' choices. Players should find their own best routes as a way to improve their play.

✱ When life is low, restore it through life-increasing events!
A player's life decreases when attacked by an enemy, but numerous life-increasing events are provided throughout the stages. The life-increasing events happen at set locations within each stage. Repeated play will help players take advantage of these events.

5. MAINTENANCE INSTRUCTIONS

5.1. EXPLANATION OF TEST AND DATA DISPLAY

Perform the tests and data check periodically when installing the machine initially or collecting cash, or when the machine does not function correctly. Perform checks in accordance with the explanations given in this section.

The following shows tests and modes that should be utilized as applicable.
This product's basic system consists of the Chihiro game board and the GD-ROM drive. The system enables you to play several games one after the other just by changing a GD-ROM disc that is to be set on the GD-ROM drive.

Therefore the product supports, the following 2 test modes:

(1) System test mode for an automatic self-diagnostic test (generally used by every product that contains the basic system) and a coin assignment (specifically used by this product)

and

(2) Game test mode for testing the input/output control devices and setting the difficulty level (specifically used by this product).

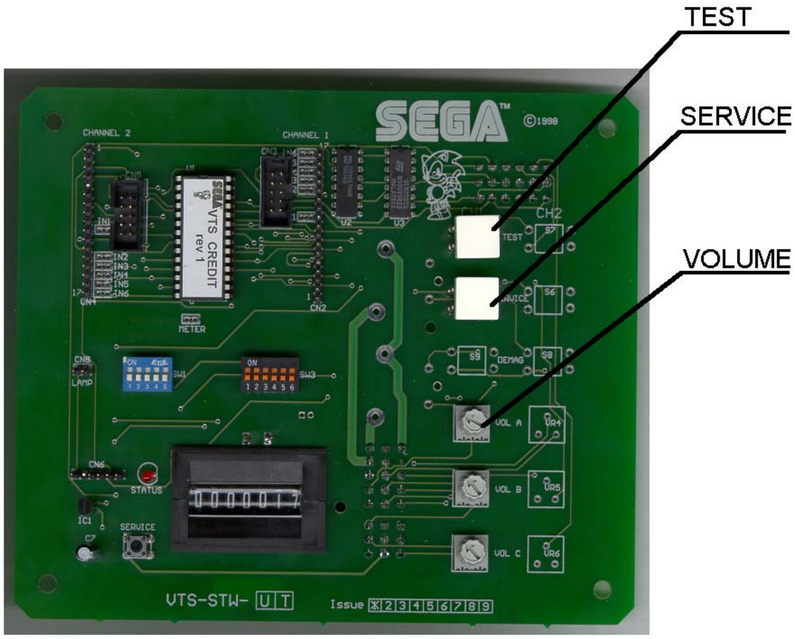
	• Any settings that are changed by users during TEST MODE are saved upon exiting TEST MODE with the EXIT command in the SYSTEM MENU. If the unit is powered off prior to exiting, changes to settings will not take effect. • You may not enter GAME TEST MODE while the unit is reading from or checking the GD-ROM. If error messages are displayed when exiting TEST MODE, you should power the unit off and on again. • In the manual for this product, "Media Board" and "DIMM" are one and the same. • Use with the specified settings. If settings other than those specified are used, inappropriate operations or malfunction may occur.

ITEM	DESCRIPTION / REFERENCES	INTERVAL
INSTALLATION OF THE MACHINE	When the machine is installed perform the following checks: • Check to see that each setting is as per the standard settings input at the time of shipment. 3.9 • In the INPUT TEST mode, check each switch. 5.3.1 • In the OUTPUT TEST mode, check each of the lamps. 5.3.2 • Test on-IC-Board IC's in the self-test mode. 5.2.1	Monthly
MEMORY	• This test is automatically executed by selecting RAM TEST, or ROM BOARD TEST in the Menu mode. 5.2	Monthly
PERIODIC CHECKS	Periodically perform the following • MEMORY TEST. 5.2 • Ascertain each setting. • In the INPUT TEST mode, test the control devices. 5.3.1 • In the OUTPUT TEST mode, check each of the lamps. 5.3.2	Monthly
CONTROL SYSTEM	• In the INPUT TEST mode, check each switch and • Adjust or replace each switch and	Monthly
MONITOR (Projector)	• In the CRT TEST mode, check to ensure the monitor (projector) is adjusted correctly. 5.2.6 • Clean screen - (switch off machine and remove the plug). Do not use a water jet.	Monthly Weekly
IC BOARD	MEMORY TEST 5.2 • In the SOUND TEST mode, check the sound related ROMs. 5.2.5	Monthly
DATA CHECK	• Check such data as held in the bookkeeping screens, relating to number and length of plays. 5.2 & 5.3.5	Monthly
EXTERIOR MAINTENANCE	• Clean surfaces	Monthly
COIN MECHANISM	• Check switch operation (if fitted)	Monthly

5.1.1. VTS ASSEMBLY

CAUTION

- Do not touch places other than those specified. Touching places not specified could cause an electric shock or short circuit.



Opening the Coin Chute door will reveal the VTS Assembly shown above. The function of each switch is as follows.

TEST BUTTON (TEST SW)	Used to enter TEST mode. Also has function during TEST mode. Refer to the later section detailing TEST mode.
SERVICE BUTTON (SERVICE SW)	Gives credits without registering on the coin counter. Also used during TEST mode.
DEMAG	Eliminates colour unevenness from the monitor screen.
VOLUME CONTROL FRONT	Adjusts the volume of the sound emitted from the speakers.

The control panel switches can also be used in the place of the VTS switches:

Note: There are three volume controls on the VTS, only the top volume control is used, the other two are spares.

5.2. SYSTEM TEST MENU MODE

System Test Mode can be used to check that the main circuit operations are correct, adjust Monitor colour, and perform coin/credit settings.
However, this product can only be used with the settings shown below.

SOUND TEST	- OUTPUT TYPE: STEREO
COIN ASSIGNMENTS	- COIN CHUTE TYPE: COMMON - SERVICE TYPE: COMMON
NETWORK SETTING (MEDIA)	- NETWORK TYPE: NONE

1. Press the TEST Button after powering on the unit to display the following SYSTEM MENU.

```
     SYSTEM MENU

  MEDIA BOARD TEST
  SYSTEM INFORMATION
  JVS TEST
  SOUND TEST
  C.R.T. TEST
  COIN ASSIGNMENTS
  CLOCK  SETTING
  NETWORK SETTING  (CORE)
  NETWORK SETTING  (MEDIA)
  ENTER GAME TEST
        [HOUSE OF THE DEAD 3]

→ EXIT

   SELECT WITH SERVICE BUTTON
     AND PRESS TEST BUTTON
```

2. Press the SERVICE Button to move the cursor to the desired test item.
3. Move the cursor to the desired item and press the TEST Button to display each test screen.
4. Move the cursor to ENTER GAME TEST and press the TEST Button to enter the individual test menus for each game. Refer to "9-3 GAME TEST MODE".
5. When testing is complete, move the cursor to EXIT and press the TEST Button. The game advertisement screen should be displayed.

5.2.1. MEDIA BOARD TEST

STOP IMPORTANT	Powering off the system during the MEDIA BOARD TEST with a DIMM BOARD will erase the game programme data. It may be necessary to reload the data. Always wait for the test to complete before attempting to exit.

MEDIA BOARD TEST is used to check the memory and IC on the MEDIA BOARD connected to the Chihiro. Test screens and test times may differ depending on the type of MEDIA BOARD connected to the unit.
✱The following is the MEDIA BOARD TEST screen for a unit with a DIMM BOARD.

```
MEDIA BOARD TEST

VERSION       ****
STATUS        GOOD
CHECKING      100%

SYSTEM TEST
DIMM0        - GOOD
DIMM1        - GOOD
IC 34, 35S   - GOOD
IC10, 11S    - GOOD
GD DRIVE     - GOOD
-- COMPLETED --

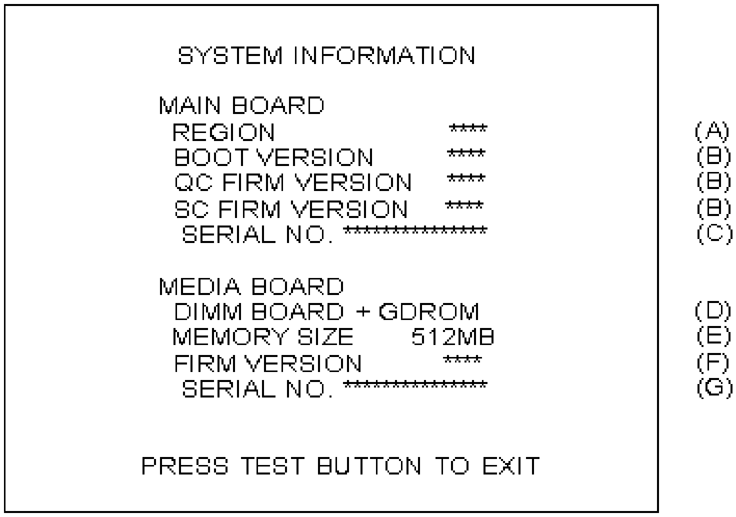

PRESS TEST BUTTON TO EXIT
```

1. MEDIA BOARD TEST begins immediately upon entering this test mode.
2. If "GOOD" is displayed to the right of each item, the MEDIA BOARD components are functioning properly.
3. After the test is complete, move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

5.2.2. SYSTEM INFORMATION

Use SYSTEM INFORMATION to check version and other information for system programmes. Screens may differ depending on the type of MEDIA BOARD connected to the unit.

✱The following is the SYSTEM INFORMATION screen for a unit with a DIMM BOARD.



Press the TEST Button to return to the SYSTEM MENU screen.

(A) REGION
The COUNTRY CODE of the MAIN BOARD.

(B) BOOT VERSION, QC FIRM VERSION, SC FIRM VERSION
Version information for the MAIN BOARD system programmes.

(C) SERIAL NO.
Serial number of the MAIN BOARD.

(D) DIMM BOARD + GDROM
Type of MEDIA BOARD. This example shows a DIMM BOARD with a GD-ROM DRIVE connected.

(E) MEMORY SIZE
Capacity of DIMM memory installed on the DIMM BOARD.

(F) FIRM VERSION
Version information for the DIMM BOARD system programme.

(G) SERIAL NO.
Serial number of the DIMM BOARD.

5.2.3. JVS TEST

JVS TEST is used to verify the specs of the I/O BOARD connected to the Chihiro and to run input tests.
I/O BOARD specs are displayed initially.
Screens may differ depending on the type of I/O BOARD connected to the unit.

```
                  JVS TEST
                 INPUT TEST
                 NEXT NODE
              →  EXIT
NODE               ****
NAME               ****************
                   I/O BD JVS
                   VER  ****
                   *********
CMD VER            1.1
JVS VER            2.0
COM VER            1.0
SWITCH             2 PLAYER(S) 13 BITS
COIN               2 SLOT
ANALOG             8 CH
ROTARY             0 CH
KEYCODE            0
SCREEN             X:0 Y:0 CH:0
CARD               0 SLOT
HOPPER OUT         0 CH
DRIVER OUT         6 CH
ANALOG OUT         0 CH
CHARACTER          CHARA: 0  LINE: 0

        SELECT WITH SERVICE BUTTON
          AND PRESS TEST BUTTON
```

(1) Use the SERVICE Button to move the cursor to the desired test item.

(2) Move the cursor to INPUT TEST and press the TEST Button to enter the INPUT TEST screen for the I/O BOARD currently displayed.

(3) When 2 or more I/O BOARDS are connected, move the cursor to NEXT NODE and press the TEST Button to enter the test screen for the next I/O BOARD. The lower the NODE number, the further away the node is from the Chihiro.

(4) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

5.2.4. INPUT TEST Screen

```
             JVS TEST
            INPUT TEST

     NODE       1/1
       SYSTEM     00                    (A)
       PLAYER 1   0000                  (A)
       PLAYER 2   0000                  (A)
       COIN 1     0000                  (B)
       COIN 2     0000                  (B)
       ANALOG 1   0000                  (C)
       ANALOG 2   0000                  (C)
       ANALOG 3   0000                  (C)
       ANALOG 4   0000                  (C)
       ANALOG 5   0000                  (C)
       ANALOG 6   0000                  (C)
       ANALOG 7   0000                  (C)
       ANALOG 8   0000                  (C)

  PRESS TEST AND SERVICE BUTTON TO EXIT
```

(5) On-screen values change according to the input from switches and the volume.

(A) SYSTEM, PLAYER
Values change with input from control panel/other switches.

(B) COIN
Increases with input from the COIN SWITCH. The count is cleared when exiting TEST MODE.

(C) ANALOG
Displays analog values from "0000" to "FFFF".

(6) Press the SERVICE and TEST Buttons simultaneously to return to the JVS TEST main screen.

5.2.5. SOUND TEST

Use SOUND TEST to test sound output and to select the stereo/mono/surround setting.

```
                 SOUND TEST


     OUTPUT TYPE      STEREO               (A)
     RIGHT SPEAKER    OFF                  (B)
     LEFT SPEAKER     OFF                  (B)
  →  EXIT



      SELECT WITH SERVICE BUTTON
         AND PRESS TEST BUTTON
```

(1) Use the SERVICE Button to move the cursor to the desired test item.

(2) Press the TEST Button to enter the selected item.

(A) OUTPUT TYPE (STEREO, MONO, SURROUND)
Select the sound output from the I/O PANEL audio output interface setting among STEREO, MONO and SURROUND.

(B) RIGHT/LEFT SPEAKER (ON, OFF)
When set to "ON", the test sends a beep to each audio output interface. Only the word "SPEAKER" is displayed when the OUTPUT TYPE is set to "MONO", and when set to "ON", the test sends the same beep to both the left/right audio output interfaces.
To test surround output, it is necessary to use a separate Audio Amp, and receive signal from a terminal not in use at the time of shipping.
Note: Not available with this product.

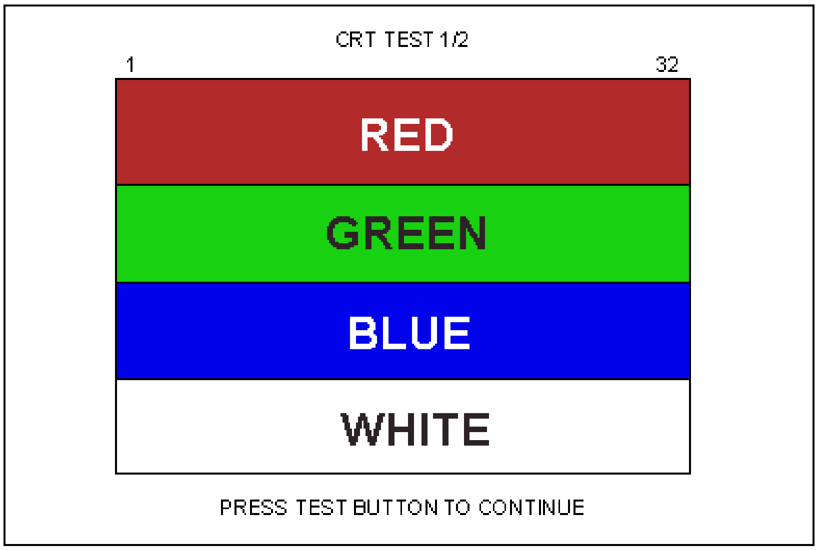
(3) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

5.2.6. C.R.T. TEST

Use the C.R.T. TEST to adjust monitor colours and verify screen size.

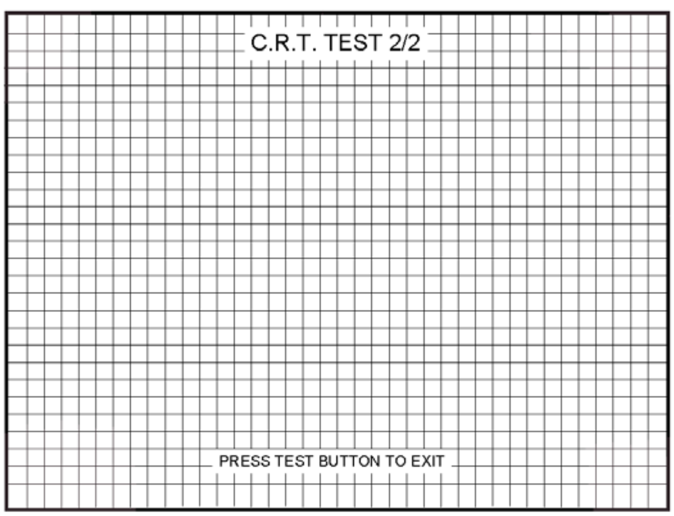
COLOUR CHECK Screen

(1) Monitor COLOUR CHECK screen is displayed initially.
Each of the colours (red, green and blue) is darkest at the far left and gets progressively lighter (32 steps) towards the right.
Monitor brightness is set correctly if the white colour bar is black at the left edge and white at the right edge.



(2) Press the TEST Button to proceed to the next page

SIZE CHECK Screen



(3) Adjust the CHECK GRID so that the entire GRID is displayed on the screen.

(4) Press the TEST Button to return to the SYSTEM MENU screen.

5.2.7. COIN ASSIGNMENTS

Use COIN ASSIGNMENTS to set the credit rate for each coin inserted.

(1) Use the SERVICE Button to move the cursor to the desired test item.

(2) Press the TEST Button to change the setting or to open the detailed settings.

(3) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

```
        COIN ASSIGNMENTS

    COIN CHUTE TYPE     COMMON                (A)
    SERVICE TYPE        COMMON                (B)

    COIN CHUTE #1 COIN TO CREDIT RATE         (C)
    1 COIN(S) COUNT AS 1 CREDIT(S)
    COIN CHUTE #2 COIN TO CREDIT RATE         (C)
    1 COIN(S) COUNT AS 1 CREDIT(S)
    DETAIL SETTING                            (D)
    GAME COST SETTING                         (H)
  → EXIT

     SELECT WITH SERVICE BUTTON
      AND PRESS TEST BUTTON
```

COIN CHUTE TYPE - COMMON

```
          COIN ASSIGNMENTS

(A)   COIN CHUTE TYPE     INDIVIDUAL
(B)   SERVICE TYPE        INDIVIDUAL

(C)   COIN CHUTE #1 COIN TO CREDIT RATE
      1 COIN(S) COUNT AS 1 CREDIT(S)

(D)   DETAIL SETTING
(H)   GAME COST SETTING
    → EXIT

       SELECT WITH SERVICE BUTTON
        AND PRESS TEST BUTTON
```

COIN CHUTE TYPE - INDIVIDUAL

(A) COIN CHUTE TYPE (COMMON, INDIVIDUAL)
Adjust settings according to the specs of the cabinet COIN CHUTE.

COMMON
This is for cabinets where a single COIN CHUTE is used by multiple players.
Coins inserted by each player are treated as common credits.
Up to 2 COIN CHUTES (#1 and #2) may be used. The (C) COIN TO CREDIT RATE setting for COIN CHUTE #1 and #2 may be set differently.

INDIVIDUAL
This is for cabinets with individual COIN CHUTES for each player.
Coins inserted by each player are treated as individual player credits.
The (C) COIN TO CREDIT RATE setting is used by all COIN CHUTES.

(B) SERVICE TYPE (COMMON, INDIVIDUAL)
Use this to set the function of each SERVICE Button when there is more than one SERVICE Button.

COMMON
Pressing any SERVICE Button enters service credits for all players.

INDIVIDUAL
Pressing the SERVICE Button enters service credits only for the corresponding player.

(C) COIN TO CREDIT RATE
Set the CREDIT RATE for each coin inserted.
The "△ COIN(S) COUNT AS □ CREDIT(S)" setting indicates that "Inserting △ coins equals □ credits".
Set this to "FREE PLAY" to allow game play without credits.
When (A) COIN CHUTE TYPE is set to "COMMON", COIN CHUTE #2 settings are restricted to some extent by the settings for COIN CHUTE #1.

(D) DETAIL SETTING
This mode allows for more detailed credit rate settings than the (C) COIN TO CREDIT RATE setting.
Changes made in DETAIL SETTING override any (C) COIN TO CREDIT RATE settings.

DETAIL SETTING Screen

```
        COIN ASSIGNMENTS
        DETAIL SETTING
    COIN CHUTE #1 MULTIPLIER                 (E)
     1 COIN COUNT AS 1 COIN(S)
    COIN CHUTE #2 MULTIPLIER                 (E)
     1 COIN COUNT AS 1 COIN(S)
    BONUS ADDER        NO BONUS ADDER        (F)
    COIN TO CREDIT  1 COIN(S) 1 CREDIT       (G)
   ➔EXIT
   COIN CHUTE #1 OPERATION
   COIN   1 2 3 4 5 6 7 8 9
   CREDIT 1 2 3 4 5 6 7 8 9
   COIN CHUTE #2 OPERATION
   COIN   1 2 3 4 5 6 7 8 9
   CREDIT 1 2 3 4 5 6 7 8 9
     SELECT WITH SERVICE BUTTON
      AND PRESS TEST BUTTON
```

COIN CHUTE TYPE --- COMMON

```
          COIN ASSIGNMENTS
           DETAIL SETTING
     COIN CHUTE #1 MULTIPLIER
       1 COIN COUNT AS 1 COIN(S)


     BONUS ADDER        NO BONUS ADDER
     COIN TO CREDIT   1 COIN(S) 1 CREDIT
   ➔EXIT
    COIN CHUTE #1 OPERATION
    COIN    1  2  3  4  5  6  7  8  9
    CREDIT  1  2  3  4  5  6  7  8  9


       SELECT WITH SERVICE BUTTON
         AND PRESS TEST BUTTON
```

COIN CHUTE TYPE --- INDIVIDUAL

(E) COIN CHUTE MULTIPLIER
Use this to set how many coins will be counted for each coin inserted.
The "1 COIN COUNT AS △ COIN(S)" setting indicates that "Each coin will be counted as △ coins".
When the (A) COIN CHUTE TYPE is set to "COMMON", the setting may be set individually for COIN CHUTE #1 and #2.

(F) BONUS ADDER
Use this to set the number of coins calculated with the (E) COIN CHUTE MULTIPLIER setting that need to be inserted to get 1 bonus coin. When the (A) COIN CHUTE TYPE is set to "COMMON", the sum of the coins for COIN CHUTE #1 and #2 is used for the calculation.
The "△ COINS GIVE 1 EXTRA COIN" setting indicates that "For every △ coins, 1 bonus coin is given".
Set this to "NO BONUS ADDER" to disable bonus coins entirely.

(G) COIN TO CREDIT
Use this to set how many coins calculated with the (F) BONUS ADDER setting count as 1 credit.
The "△ COIN(S) 1 CREDIT" setting indicates that "Every △ coins equals 1 credit."

(H) GAME COST SETTING
Use this mode to set the number of credits required to start a game.
Screens may differ depending on the game.

```
        COIN ASSIGNMENTS
        GAME COST SETTING

  1 CREDIT TO START                     (I)
  1 CREDIT TO CONTINUE                  (J)


➔EXIT

   SELECT WITH SERVICE BUTTON
     AND PRESS TEST BUTTON
```

(I) Set the number of credits required to start a game.

(J) Set the number of credits required to continue a game.

5.2.8. CLOCK SETTING

Use the SERVICE Button to move the cursor to the item to be set.

```
            CLOCK SETTING

      2002/11/28 (THU) 21:05:14

              YEAR
              MONTH
              DAY
              HOUR
              MINUTE
            → EXIT



    SELECT WITH SERVICE BUTTON
      AND PRESS TEST BUTTON
```

(1) Move the cursor to the desired item and press the TEST Button to increase values.

(2) The max value for YEAR is "2099"; further increases return the value to "2000".

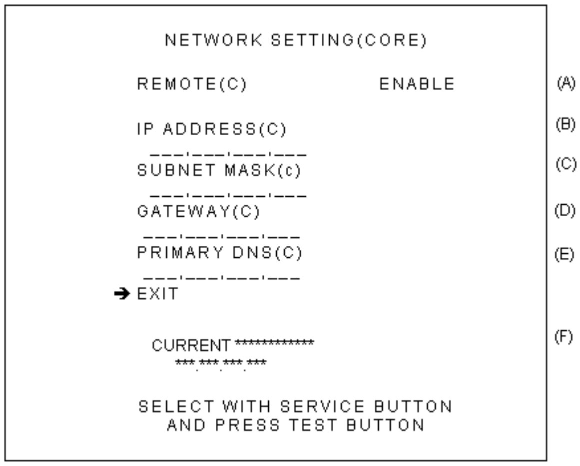
(3) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

5.2.9. NETWORK SETTING (CORE)

Use the LAN PORT attached to the Main Board, and carry out the settings necessary for network communication.

***<u>This game</u> does not support network communication connections. ***

THIS OPTION IS FOR POSSIBLE FUTURE GAMES ONLY.
SELECT EXIT AND GO DIRECTLY TO THE NEXT TEST MODE.



(1) Use the SERVICE Button to move the cursor to the desired test item. (When setting IP ADDRESS, SUBNET MASK, GAME WAY or PRIMARY DNS, use the underline as a guide.)

(2) Press the TEST Button to change the setting.

(3) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

(A) REMOTE (C)

This sets up whether a communication setting is automatic or manual.
ENABLE: Sets the communication setting automatically.
DISABLE: Sets the communication setting manually.

(B) IP ADDRESS (C)

This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.

(C) SUBNET MASK (C)

This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.

(D) GATE WAY (C)

This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.

(E) PRIMARY DNS (C)

This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.

(F) CURRENT

This displays the present setting value during a set-up of each item [(B), (C), (D), (E)]. Pressing TEST Button on SET position, the settings are memorized and the screen is changed.

5.2.10.NETWORK SETTING (MEDIA)

Use NETWORK SETTING to establish and test network connections.
This is only displayed when a network enabled MEDIA BOARD is connected to the Chihiro.

!	***This game** does not support network communication connections. *** THIS OPTION IS FOR POSSIBLE FUTURE GAMES ONLY. SELECT EXIT AND GO DIRECTLY TO THE NEXT TEST MODE.

Set (A) NETWORK TYPE to "NONE".

(1) Use the SERVICE Button to move the cursor to the desired test item.

(2) Press the TEST Button to change the setting or to open the detailed settings.

(3) Move the cursor to EXIT and press the TEST Button to return to the SYSTEM MENU screen.

```
        NETWORK SETTING(MEDIA)

     NETWORK TYPE          ETHER          (A)

     SET IP ADDRESS                       (B)
     CLEAR NETWORK SETTING                (C)
     NETWORK TEST                         (D)

  →  EXIT



     SELECT WITH SERVICE BUTTON
       AND PRESS TEST BUTTON
```

(A) NETWORK TYPE
Choose a type of the communication network.

NONE: Sets that the communication system does not perform. Sets to NONE when you don't set the network system.

ETHER: Sets ETHER for the communication network.

MOBILE: Sets a mobile communication terminal for the communication network.

ETHER + MOBILE
DEFAULT ETHER: Set ETHER or MOBILE automatically for the communication network. Priority is given to ETHER.

ETHER + MOBILE
DEFAULT MOBILE: Set ETHER or MOBILE automatically for the communication network. Priority is given to MOBILE.

(B) SET IP ADDRESS

This sets up the details of the communication network. Depending on the NETWORK TYPE setting, the contents of setting vary. If setting to NONE, it does not appear.

✱ETHER Setting

```
        SET IP ADDRESS 1/1

  ->REMOTE          ENABLE            (E)
    IP ADDRESS(E)                     (F)
      ___.___.___.___
    SUBNET MASK(E)                    (G)
      ___.___.___.___
    EXIT




      CURRENT ************            (I)
        ***.***.***.***
   SELECT WITH SERVICE BUTTON
     AND PRESS TEST BUTTON
```

✱MOBILE Setting

```
        SET IP ADDRESS 1/1

  ->IP ADDRESS(M)                     (H)
      ___.___.___.___
    EXIT








      CURRENT ************            (I)
        ***.***.***.***
   SELECT WITH SERVICE BUTTON
     AND PRESS TEST BUTTON
```

❋ ETHER + MOBILE Settings

```
          SET IP ADDRESS 1/1

    ->REMOTE        ENABLE            (E)
      IP ADDRESS(E)                   (F)
        ___.___.___.___
      SUBNET MASK(E)                  (G)
        ___.___.___.___
      IP ADDRESS(M)                   (H)
        ___.___.___.___
      EXIT


        CURRENT ************          (I)
          ***.***.***.***
     SELECT WITH SERVICE BUTTON
       AND PRESS TEST BUTTON
```

(1) Use the SERVICE Button to move the cursor to the desired test item.
(When setting IP ADDRESS or SUBNET MASK, use the underline as a guide.)

(2) Press the TEST Button to change the setting.

(3) Move the cursor to EXIT and press the TEST Button to return to the NETWORK SETTING screen.

(E) REMOTE
This sets up whether a communication setting is automatic or manual.
ENABLE: Sets the communication setting automatically.
DISABLE: Sets the communication setting manually.

(F) IP ADDRESS (E)
This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.

(G) SUBNET MASK (E)
This is one of the settings required for communication network. After setting the number, press TEST Button on SET position to memorize the setting. If you set the REMOTE setting to ENABLE, you cannot select this.

(H) IP ADDRESS (M)
This is one of the settings required for communication network. Set the number according to the Game Soft manual. After setting the number, press TEST Button on SET position to memorize the setting.

(I) CURRENT
This displays the present setting value during a set-up of each item [(F), (G), (H)]. Pressing TEST Button on SET position, the settings are memorized and the screen is changed.

(C) CLEAR NETWORK SETTING

Use this to return all values in the NETWORK SETTING to the default values and turn off network communication.

```
CLEAR NETWORK SETTING



   ->YES (CLEAR)
     NO (CANSEL)




SELECT WITH SERVICE BUTTON
  AND PRESS TEST BUTTON
```

To clear data, use the SERVICE Button to move the cursor to YES (CLEAR) and press the TEST Button. When the data has been cleared, the message "COMPLETED" is displayed.

Press the TEST Button again to return to the NETWORK SETTING main screen.

Move the cursor to NO (CANCEL) and press the TEST Button to return to the NETWORK SETTING main screen without clearing the data.

NETWORK TEST

In this test, the checking for the communication network can be performed.
Entering this test mode, checking starts immediately.

```
NETWORK TEST

VERSION  *.**
STATUS   GOOD
CHECKING 100%

**** MODE
CHECKING NETWORK
LOOPBACK - GOOD
GATEWAY -- N/A
SERVER --- N/A
-- COMPLETED --


PRESS TEST BUTTON TO EXIT
```

The display changes to "GOOD" when the checking is finished successfully, and changes to "BAD" when any problem is detected. If the connection is not permitted, the display will change to "N/A".
If you perform this test immediately after the setting change, it may not display the correct result. In this case, be sure to turn the power off and on, and enter this test mode again.

5.3. GAME TEST MODE

STOP
IMPORTANT

- When changing the game configuration, changes will not take effect until the Game Test Mode has been completed. Be sure to exit the Game Test Mode properly after configuration changes.
- Do not configure the game in ways not described in this text. It is possible that the game will not function properly.

Select ENTER GAME TEST from the System Menu screen to display the GAME TEST MENU screen as follows.
Use the SERVICE Button to move the cursor to the desired test item.
Press the TEST Button to enter the selected item's test.

```
              GAME TEST MENU

           INPUT TEST
           OUTPUT TEST
           GAME ASSIGNMENTS
           NETWORK TEST
           GUN SETTINGS
           BOOKKEEPING
           BACKUP DATA CLEAR

        →  EXIT



       SELECT WITH SERVICE BUTTON
         AND PRESS TEST BUTTON
```

Performs test, adjustments and settings for each of the Game Test Menu screen items below.

- ✱ INPUT TEST: Tests each input device used in the game.
- ✱ OUTPUT TEST: Tests each output device used in the game.
- ✱ GAME ASSIGNMENTS: Adjusts game settings.
- ✱ GUN SETTING: Performs sight settings for the game's Control Unit (Shotgun).
- ✱ BOOKKEEPING: View all recorded game data.
- ✱ BACKUP DATA CLEAR: Erase all game records.

After selecting an item, read the explanations below regarding operation.

After performing tests and adjustments, return to the Game Test Menu screen, select EXIT and press the TEST Button. You will return to the System Menu Screen.

Move the cursor to EXIT on System Menu screen and press the TEST Button to return to the Game Play screen.

5.3.1. INPUT TEST

Select INPUT TEST to display the following screen and check the status of input devices.
This test should be used periodically to check that each input device is functioning correctly.

INPUT TEST

	PLAYER1	PLAYER2
START	OFF	OFF
TRIGGER	OFF	OFF
GRIP	OFF	OFF
GUN-X	00	00
GUN-Y	00	00
SCREEN-IN	OUT	OUT
SERVICE	OFF	
TEST	OFF	

PRESS TEST BUTTON TO EXIT

The items refer to the following input devices.

- ❋ START: The player START Buttons.
- ❋ TRIGGER: The gun triggers.
- ❋ GRIP: The gun grips.
- ❋ GUN-X: The X-direction (horizontal) sight position for the guns.
- ❋ GUN-Y: The Y-direction (vertical) sight position for the guns.
- ❋ SCREEN-IN: Detection of the gun sight sensors.
- ❋ SERVICE: The SERVICE Button.
- ❋ TEST: The TEST Button.

* Input is normal if the display to the right of each item changes from OFF to ON when each input device is operated.

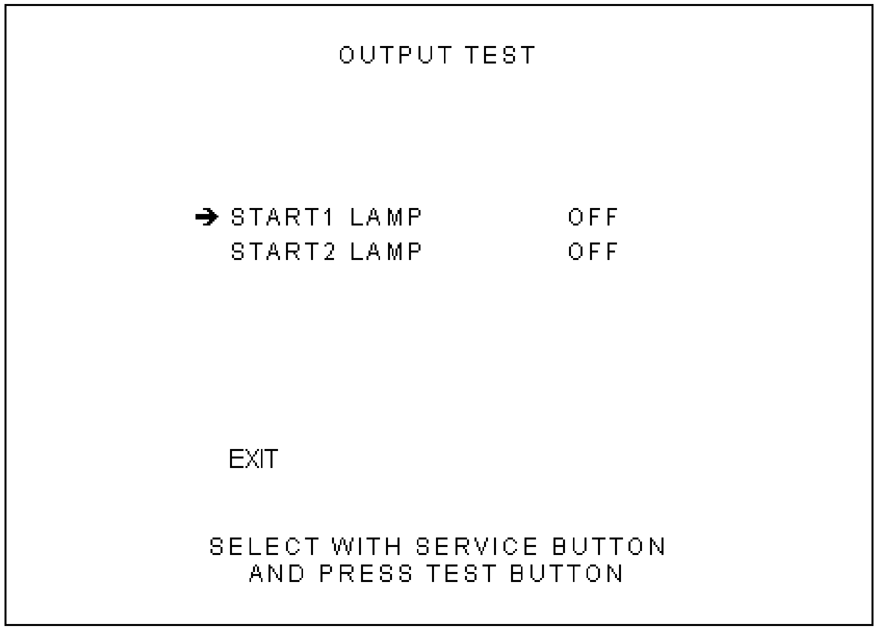
* Input is normal if the display to the right of SCREEN-IN changes from OUT to IN when the shotgun is pointed at the screen.

* Input is normal if the display values to the right of GUN-X and GUN-Y change according to the movement of the guns when they are pointed at the screen and moved.

Press the SERVICE and TEST Buttons simultaneously to return to the Game Test Menu screen.

5.3.2. OUTPUT TEST

Select OUTPUT TEST to display the following screen and check the status of each lamp.
This test should be used periodically to check that the lamps are functioning correctly.



Perform the tests as follows.

- ❋ START1 LAMP: Select START1 LAMP and press the TEST Button or START Button 1. The display to the right of the item will change to ON and START Button 1 will flash.
- ❋ START2 LAMP: Select START2 LAMP and press the TEST Button or START Button 2. The display to the right of the item will change to ON and START Button 2 will flash.

Move the cursor to EXIT and press the TEST Button to return to the Game Test Menu screen.

5.3.3. GAME ASSIGNMENTS

Select GAME ASSIGNMENTS to display the current game settings and make changes.

GAME ASSIGNMENTS

GAME DIFFICULTY	NORMAL
LIFE SETTING	
INITIAL LIFE	3
MAX LIFE	5
BLOOD COLOR	GREEN
VIOLENCE	MEDIUM
ADVERTISE SOUND	ON
LANGUAGE	ENGLISH ....*

→ EXIT

SELECT WITH SERVICE BUTTON
AND PRESS TEST BUTTON

Perform the following settings for each item.

- ❋ GAME DIFFICULTY: Set the level of difficulty to one of five levels - VERY EASY→MEDIUM EASY→NORMAL→MEDIUM HARD→VERY HARD.
- ❋ LIFE SETTING INITIAL LIFE: Set from one to nine. It is not possible to set this above MAX LIFE.
- ❋ LIFE SETTING MAX LIFE: Set from one to nine.
- ❋ BLOOD COLOUR: You can set the colour of blood to one of two settings - RED or GREEN.
- ❋ VIOLENCE: You can set the level of damage for the enemies to one of three settings - GRATUITOUS, MEDIUM or MILD.
- ❋ ADVERTISE SOUND: You can set the 'advertise' sound to ON or OFF.
- ❋ LANGUAGE *(Only displayed for overseas versions outside of the United States.): The selections are ENGLISH, FRENCH, ITALIAN, SPANISH and GERMAN. The subtitles and displays that appear during the game will change to the selected language.
  Changes to settings are not enabled until Test Mode is exited. After changing settings, be sure to exit Test Mode.

After changing the settings, select EXIT and press the TEST Button to return to the Game Test Menu screen.

5.3.4. GUN SETTING

Select GUN SETTING to display the following screen.
Perform the sight settings for the shotguns to be used in the game.

```
                GUN SETTINGS

          GUN MASK CHECK
          PLAYER1 GUN ADJUSTMENT
          PLAYER1 GUN DEFAULT ADJUSTMENT
          PLAYER2 GUN ADJUSTMENT
          PLAYER2 GUN DEFAULT ADJUSTMENT



        ➔ EXIT



          SELECT WITH SERVICE BUTTON
             AND PRESS TEST BUTTON
```

Details for each item are as follows.

❋	GUN MARK CHECK:	Checks the gun sights. Will check 1P and 2P guns at the same time.
❋	PLAYER1 GUN ADJUSTMENT:	Adjusts the sight for the Player 1 side.
❋	PLAYER1 GUN DEFAULT ADJUSTMENT:	Adjust the default sight settings for the Player 1 side.
❋	PLAYER2 GUN ADJUSTMENT:	Adjust the sight for the Player 2 side. (Operated in the same way as PLAYER1 GUN ADJUSTMENT.)
❋	PLAYER2 GUN DEFAULT ADJUSTMENT:	Adjust the default sight settings for the Player 2 side. (Operated in the same way as PLAYER1 GUN DEFAULT ADJUSTMENT.)

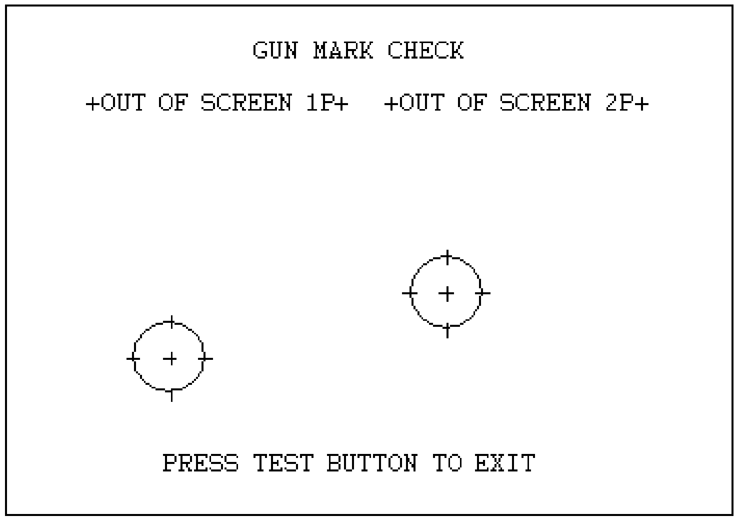
Changes to settings are not enabled until the Test Mode is exited. After changing settings, be sure to exit Test Mode.

After changing the settings, select EXIT and press the TEST Button to return to the Game Test Menu screen.

5.3.4.1.GUN MARK CHECK

This item checks gun sights.

Select GUN MARK CHECK on the Gun Setting screen and press the TEST Button.



- ❋ (1P Gun cross)
  This is displayed when the gun is pointed at the screen. 1P is red.
- ❋ (2P Gun cross)
  This is displayed when the gun is pointed at the screen. 2P is blue.
- ❋ "OUT OF SCREEN" is displayed when the gun cross is perceived to be out of screen.

Pointing the gun at the screen displays the gun cross (sight) for that gun. You can check to see if the sight lines up properly at this screen.

Press the TEST Button when everything has been checked. You will return to the Gun Setting screen.

5.3.4.2.PLAYER1 GUN ADJUSTMENT/PLAYER2 GUN ADJUSTMENT

This item adjusts the Player 1 gun sight.
(This is the same for "PLAYER2 GUN ADJUSTMENT".)

(1) Select PLAYER1 GUN ADJUSTMENT on the Gun Setting screen and press the TEST Button.



(2) Follow the on-screen instructions to adjust the gun sight settings. Aim at the mark in the upper left corner and fire. The mark in the upper left will disappear, and the same mark will be displayed in the lower right corner.

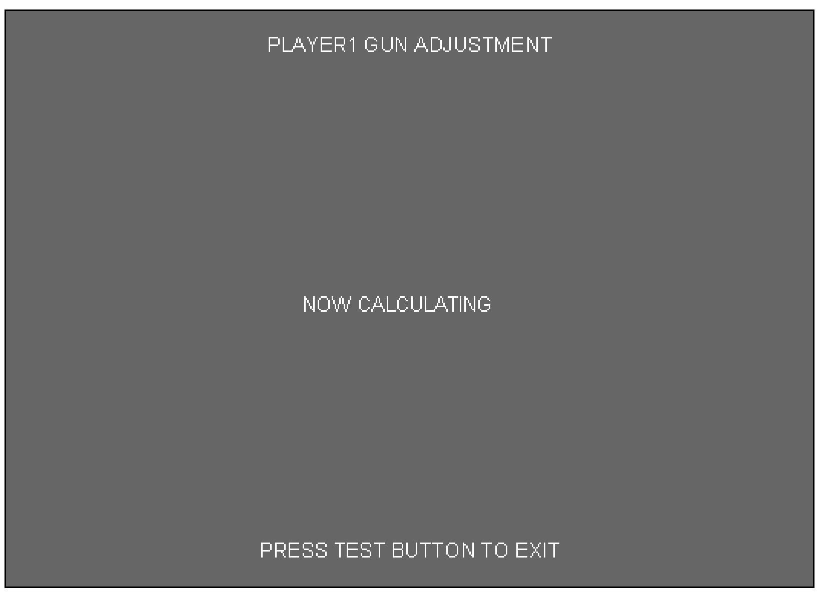
(If the TEST Button is pressed, settings will be cancelled and will return to the Gun Setting screen.)



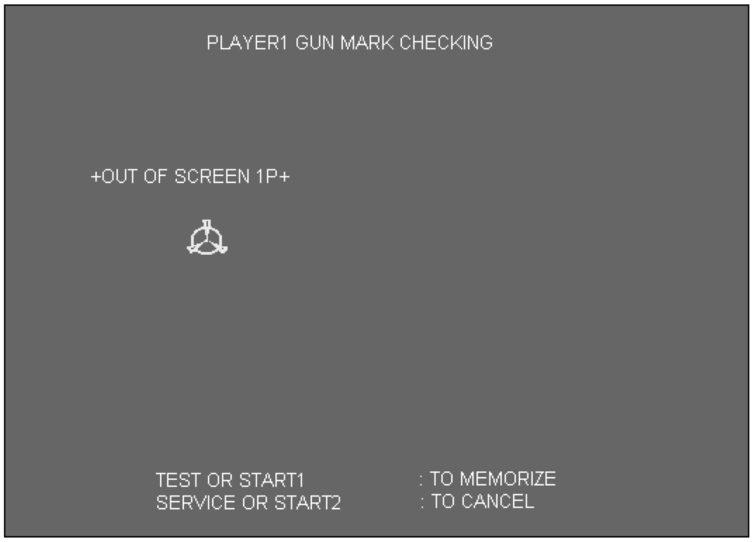
(3) Aim and fire at the mark to the lower right. The mark to the lower right will disappear, and the same mark will be displayed in the centre.
(If the TEST Button is pressed, settings will be cancelled and will return to the Gun Setting screen.)



(4) Aim and fire at the mark in the centre. "NOW CALCULATING" will be displayed in the centre.
(If the TEST Button is pressed, settings will be cancelled and will return to the Gun Setting screen.)



(5) The screen will automatically switch to the following.



❋ OUT OF SCREEN" is displayed when the gun cross is perceived to be out of screen.

(6) The gun cross is displayed in the centre. Confirm that you can aim accurately within the frame, from edge to edge.

- When a sight is out of alignment, press the SERVICE Button or the 2P Start Button and readjust the settings. You will return to the Gun Setting screen.

- If the sights are aligned, press the TEST Button or the 1P Start Button to record the sight settings.

Refer to the following procedure when adjusting the sights.

- Line up the concave sight nearest you on the gun so that it is at the height of the horizontal line of the "+" mark.

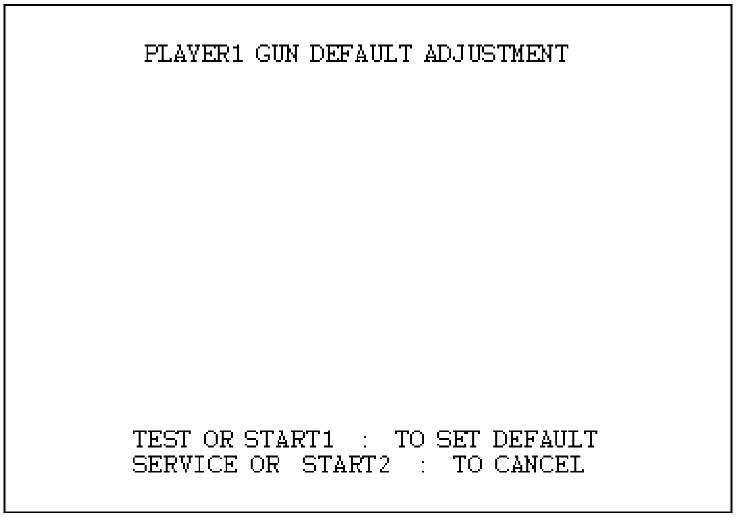
- Line up the convex sight at the tip of the gun so that it also lines up with the horizontal line.

- Line up the centres of the tops of the concave and convex sights with the centre of the "+" and fire.

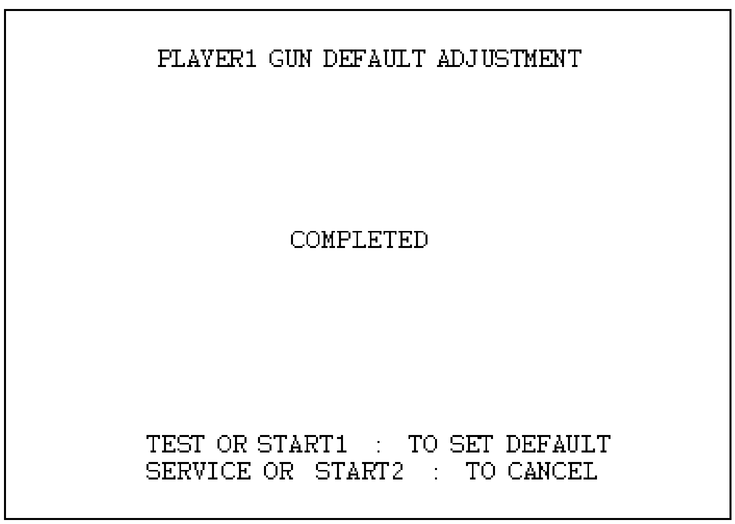
5.3.4.3.PLAYER1 GUN DEFAULT ADJUSTMENT/PLAYER2 GUN DEFAULT ADJUSTMENT

This item adjusts the sight settings to those at the time of shipment.
(This is the same for "PLAYER2 GUN DEFAULT ADJUSTMENT".)

Select PLAYER1 GUN DEFAULT ADJUSTMENT on the Gun Setting screen and press the TEST Button.



Press the TEST Button or the Player 1 Start Button to adjust the sights to the previously established default value. Press the SERVICE Button or the Player 2 Start Button to cancel.



"COMPLETED" will be displayed when the adjustments are completed.

5.3.5. BOOKKEEPING

Select BOOKKEEPING on the Game Test Menu screen to display the three screens of operating status data.

```
            BOOKKEEPING                 PAGE 1/3

      COINS1                       0
      COINS2                       0
      TOTAL COINS                  0

      COIN CREDITS                 0
      SERVICE CREDITS              0
      TOTAL CREDITS                0



      PRESS TEST BUTTON TO CONTINUE
```

The display items for the screen (Page 1 of 3) are as follows.

⁕	COIN 1:	The number of coins inserted into Coin Slot 1.
⁕	COIN 2:	The number of coins inserted into Coin Slot 2.
⁕	TOTAL COINS:	The total number of coins inserted into the coin slots.
⁕	COIN CREDITS:	The number of credits for the coins inserted.
⁕	SERVICE CREDITS:	The number of credits input by the Service Button.
⁕	TOTAL CREDITS:	The total number of all credits.

Press the TEST Button to display the next screen.

```
              BOOKKEEPING                PAGE 2/3


NUMBER OF GAMES          0
TOTAL TIME              0D  0H  0M  0S
PLAY TIME               0D  0H  0M  0S
AVERAGE PLAY TIME       0M  0S
LONGEST PLAY TIME       0M  0S
SHORTEST PLAY TIME      0M  0S


         PRESS TEST BUTTON TO CONTINUE
```

The display items for the screen (Page 2 of 3) are as follows.

❋	NUMBER OF GAMES:	The total number of games played by 1P and 2P.
❋	TOTAL TIME:	The amount of time the unit has been in operation.
❋	PLAY TIME:	The amount of time the game has been played.
❋	AVERAGE PLAY TIME:	The average play time for one game.
❋	LONGEST PLAY TIME:	The longest play time for one game.
❋	SHORTEST PLAY TIME:	The shortest play time for one game.

Press the TEST Button to display the next screen.

```
BOOKKEEPING                 PAGE3/3
      GAME    HISTOGRAM

   0M 00S ~ 0M 29S       0000
   0M 30S ~ 0M 59S       0000
   1M 00S ~ 1M 29S       0000
   1M 30S ~ 1M 59S       0000
   2M 00S ~ 2M 29S       0000
   2M 30S ~ 2M 59S       0000
   3M 00S ~ 3M 29S       0000
   3M 30S ~ 3M 59S       0000
   4M 00S ~ 4M 29S       0000
   4M 30S ~ 4M 59S       0000
   5M 00S ~ 5M 29S       0000
   5M 30S ~ 5M 59S       0000
   6M 00S ~ 6M 29S       0000
   6M 30S ~ 6M 59S       0000
   7M 00S ~ 7M 29S       0000
   7M 30S ~ 7M 59S       0000
   8M 00S ~ 8M 29S       0000
   8M 30S ~ 8M 59S       0000
   9M 00S ~ 9M 29S       0000
   9M 30S ~ 9M 59S       0000
   OVER    10M 00S       0000

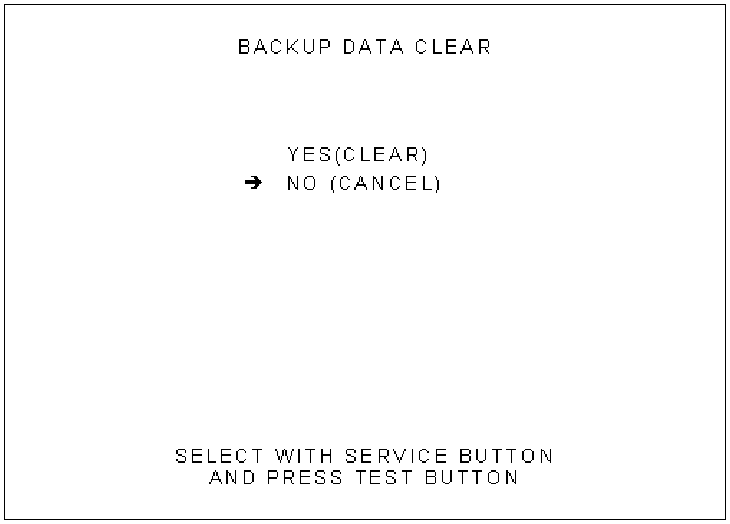
   PRESS TEST BUTTON TO EXIT
```

This displays play times on a scale from 0M00S to 9M59S with 30-second intervals. All play times over ten minutes are included in the item OVER 10M00S.

Press the TEST Button after viewing. You will return to the Game Test Menu screen.

5.3.6. BACKUP DATA CLEAR

Select BACKUP DATA CLEAR to clear the contents of BOOKKEEPING and Score Data.



BACKUP DATA CLEAR Screen

To clear data, use the SERVICE Button to move the cursor to YES (CLEAR) and then press the TEST Button.
When the data has been cleared, the message "COMPLETED" will be displayed.

Press the TEST Button again to return to the Game Test Menu screen.

Move the cursor to NO (CANCEL) and press the TEST Button to return to the Game Test Menu screen without clearing the data.

Note that this operation does not affect the settings of the GAME ASSIGNMENTS and the GUN ADJUSTMENT.

Using the BACKUP DATA CLEAR function from this screen will not affect coin/credit data. To clear coin/credit data, use the BACKUP DATA CLEAR function in SYSTEM TEST MODE.

6. COIN MECH INSTALLATION AND CREDIT BOARD SET UP

6.1. INTRODUCTION

Game credits between the Coin Mechanism and the game board for this machine are controlled by a *VTS* board. This electronic circuit allows the price of play to be set for a range of different countries. These functions are set on Dual In Line (DIL) PCB mounted switches.

SW1 is used to set the currency (or coin ratio) and SW3 the price of play. Refer to the Tables on the following pages for the correct settings for your environment.

The *VTS* board pictured below is mounted in the Coin Chute Tower.

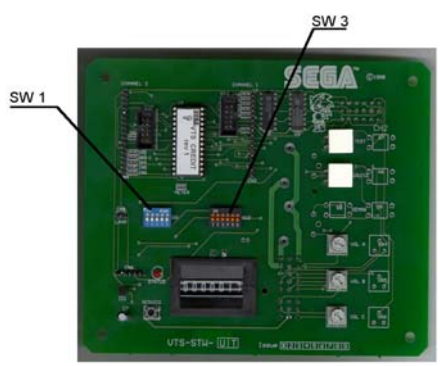
The *VTS* board is connected to the coin validator and lamps via a dedicated wiring harness depending upon the coin validator used:

Wiring Harness	Validator	
LM1006	Coin Controls	(15 way connector)
LM1007	Mars	(13 way connector)
LM1008	Mechanical	See note 2
N/A	NRI	See note 1

Notes

1. If NRI mechanisms are to be used, these should be ordered with the highest denomination coin on coin path #1 and the lowest denomination on coin path #4. The *VTS* board should be then be set up for either the UK or Switzerland settings. A minimum connecting lead length of 600mm is required.
2. Mechanical coin mechanisms may be connected in parallel allowing two identical mechanisms to be fitted.

The VTS Board



Credit Board Mode Settings Switch 3																			
Country	Setting	Switch 3 Setting						Coin Validator Programming								C120/SR3 Only			
		SW1	SW2	SW3	SW4	SW5	SW6	COIN1	COIN2	COIN3	COIN4	COIN5	COIN6	COIN7	COIN8	COIN9	COIN10	COIN11	COIN12
UK	Coin Controls C220 Parallel	OFF	OFF	OFF	OFF			£1	50p new	20p	10p	-	50p old	-	-				
UK	Coin Controls C220 Binary	ON	OFF	OFF	OFF			£1	50p new	20p	10p	-	50p old	-	£2				
UK	Coin Controls C220 Binary	OFF	ON	OFF	OFF			£1	50p new	20p	10p	-	£2	-	50p old				
UK	Coin Controls SR3 Parallel	ON	ON	OFF	OFF			£1	50p new	20p	10p	-	£2	-	50p old	-	-	-	-
UK Euro	Coin Controls SR3 Parallel	OFF	OFF	ON	OFF			£2 €2	£1 €1	50p new 50¢	20p 20¢	10p 10¢	-	-	-	50p old	-	-	-
UK	Mars ME/MS 111 Parallel	ON	OFF	ON	OFF			£1	£2	20p	10p	50p new	50p old						
UK	NRI Parallel	OFF	ON	ON	OFF			10p	20p	50p	£1	£2	-						
Belgium	Parallel	ON	ON	ON	OFF			-	50BFr	20BFr	5BFr								
Holland	Parallel	OFF	OFF	OFF	ON			-	5NLG	2.5NLG	1NLG								
Austria	SR3 Parallel	ON	OFF	OFF	ON			20Sch	10Sch	5Sch	1Sch								
Spain	Coin Controls C220 Binary	OFF	ON	OFF	ON			500Pta	200Pta	100Pta	50Pta	25Pta	200Pt old	50Pta old	25Pta old				
Spain	SR3/NRI Parallel	ON	ON	OFF	ON			500Pta	200Pta	100Pta	50Pta	25Pta	-	-	200Pta	-	50Pta old	25Pta old	-
Spain	Coin Controls C220 Parallel	OFF	OFF	ON	ON			100Pta	50Pta new	-	25Pta new	-	50Pta old	-	25Pta old				
Portugal Euro	Parallel	ON	OFF	ON	ON			200Es €1	100Es 50¢	50Es	-	-	-	-	-				
	TBA					OFF		TBA					**Please Note** The credit board automatically sets the validator for parallel and binary operation through an output on pin 8 of the 17 way pinstrip. For the feature to work it is necessary for the validator interconnecting cable to include at wire at this position						
						ON		TBA											
	Channels						OFF	Direct Mode											
							ON	2 channel Mode											

Note: These switch settings are under constant review and may change due to world currency updates.

- Set SW 1 according to the option settings found in the relevant Price of Play Settings Table on the following pages.
- For Germany (DM), France (Fr) & Switzerland (SFr), use the appropriate existing setting shown above (from another country) that matches the coin ratios programmed into your coin mech.
- Set SW 3 on the *VTS* /Excel board as shown in the table above corresponding to the country required.

6.1.1. PRICE OF PLAY SETTINGS UK

	Price	Bonus			DIL Switch 1				
					Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
1	10p	No Bonus			OFF	OFF	OFF	OFF	OFF
2	10p	6 = 50p			**ON**	OFF	OFF	OFF	OFF
3	20p	No Bonus			OFF	**ON**	OFF	OFF	OFF
4	20p	3 = 50p	6 = £1	12 =£2	**ON**	**ON**	OFF	OFF	OFF
5	30p	No Bonus			OFF	OFF	**ON**	OFF	OFF
6	30p	1.66 = 50p	4 = £1	8 = £2	**ON**	OFF	**ON**	OFF	OFF
7	30p	2 = 50p	4 = £1		OFF	**ON**	**ON**	OFF	OFF
8	30p	AMLD *	3 = £1	6 = £2	**ON**	**ON**	**ON**	OFF	OFF
9	40p	No Bonus			OFF	OFF	OFF	**ON**	OFF
10	40p	1.25 = 50p	3 = £1	6 = £2	**ON**	OFF	OFF	**ON**	OFF
11	50p	No Bonus			OFF	**ON**	OFF	**ON**	OFF
12	50p		3 = £1	6 = £2	**ON**	**ON**	OFF	**ON**	OFF
13	50p		2 = £1	5 = £2	OFF	OFF	**ON**	**ON**	OFF
14	60p	No Bonus			**ON**	OFF	**ON**	**ON**	OFF
15	60p		2 = £1	4 = £2	OFF	**ON**	**ON**	**ON**	OFF
16	80p	No Bonus			**ON**	**ON**	**ON**	**ON**	OFF
17	80p	1.25 = £1	2 = £1.50	2.5 = £2	OFF	OFF	OFF	OFF	**ON**
18	£1	No Bonus			**ON**	OFF	OFF	OFF	**ON**
19	£1		3 = £2		OFF	**ON**	OFF	OFF	**ON**
20	£1		2 = £2	5 = £4	**ON**	**ON**	OFF	OFF	**ON**
21	£1.50	No Bonus			OFF	OFF	**ON**	OFF	**ON**
22	£1.50		2 = £2		**ON**	**OFF**	**ON**	OFF	**ON**
23	£2	No Bonus			OFF	**ON**	**ON**	OFF	**ON**
24	£2			3 = £5	**ON**	**ON**	**ON**	OFF	**ON**
25	£3	No Bonus			OFF	OFF	OFF	**ON**	**ON**
26	£3			2 = £5	**ON**	OFF	OFF	**ON**	**ON**
27	£5	No Bonus			OFF	**ON**	OFF	**ON**	**ON**
28	£5			3 = £10	**ON**	**ON**	OFF	**ON**	**ON**
29	£7.50	No Bonus			OFF	OFF	**ON**	**ON**	**ON**
30	£7.50			2 = £10	**ON**	OFF	**ON**	**ON**	**ON**
31	£10	No Bonus			OFF	**ON**	**ON**	**ON**	**ON**
32	Free Play				**ON**	**ON**	**ON**	**ON**	**ON**

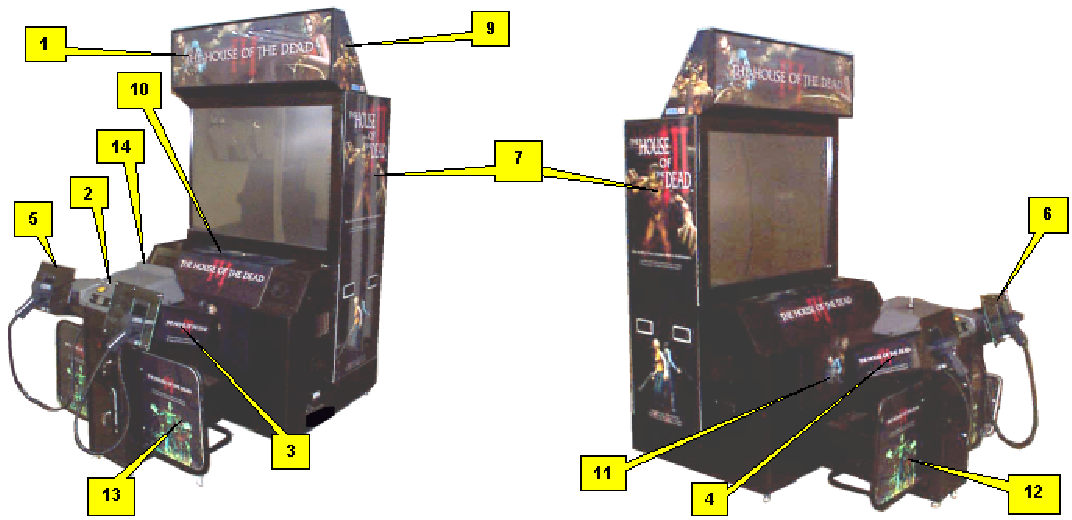
6.1.2. PRICE OF PLAY SETTINGS EURO

	Price	Bonus			DIL Switch 1				
					Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
1	10¢	No Bonus			OFF	OFF	OFF	OFF	OFF
2	10¢	6 = 50¢			**ON**	OFF	OFF	OFF	OFF
3	20¢	No Bonus			OFF	**ON**	OFF	OFF	OFF
4	20¢	3 = 50¢	6 = €1	12 =€2	**ON**	**ON**	OFF	OFF	OFF
5	30¢	No Bonus			OFF	OFF	**ON**	OFF	OFF
6	30¢	1.66 = 50¢	4 = €1	8 = €2	**ON**	OFF	**ON**	OFF	OFF
7	30¢	2 = 50¢	4 = €1		OFF	**ON**	**ON**	OFF	OFF
8	30¢	AMLD *	3 = €1	6 = €2	**ON**	**ON**	**ON**	OFF	OFF
9	40¢	No Bonus			OFF	OFF	OFF	**ON**	OFF
10	40¢	1.25 = 50¢	3 = €1	6 = €2	**ON**	OFF	OFF	**ON**	OFF
11	50¢	No Bonus			OFF	**ON**	OFF	**ON**	OFF
12	50¢		3 = €1	6 = €2	**ON**	**ON**	OFF	**ON**	OFF
13	50¢		2 = €1	5 = €2	OFF	OFF	**ON**	**ON**	OFF
14	60¢	No Bonus			**ON**	OFF	**ON**	**ON**	OFF
15	60¢		2 = €1	4 = €2	OFF	**ON**	**ON**	**ON**	OFF
16	80¢	No Bonus			**ON**	**ON**	**ON**	**ON**	OFF
17	80¢	1.25 = £1	2 = €1.50	2.5 = €2	OFF	OFF	OFF	OFF	**ON**
18	€1	No Bonus			**ON**	OFF	OFF	OFF	**ON**
19	€1		3 = €2		OFF	**ON**	OFF	OFF	**ON**
20	€1		2 = €2	5 = €4	**ON**	**ON**	OFF	OFF	**ON**
21	€1.50	No Bonus			OFF	OFF	**ON**	OFF	**ON**
22	€1.50		2 = €2		**ON**	**OFF**	**ON**	OFF	**ON**
23	€2	No Bonus			OFF	**ON**	**ON**	OFF	**ON**
24	€2			3 = €5	**ON**	**ON**	**ON**	OFF	**ON**
25	€3	No Bonus			OFF	OFF	OFF	**ON**	**ON**
26	€3			2 = €5	**ON**	OFF	OFF	**ON**	**ON**
27	€5	No Bonus			OFF	**ON**	OFF	**ON**	**ON**
28	€5			3 = €10	**ON**	**ON**	OFF	**ON**	**ON**
29	€7.50	No Bonus			OFF	OFF	**ON**	**ON**	**ON**
30	€7.50			2 = €10	**ON**	OFF	**ON**	**ON**	**ON**
31	€10	No Bonus			OFF	**ON**	**ON**	**ON**	**ON**
32	Free Play				**ON**	**ON**	**ON**	**ON**	**ON**

6.1.3. PRICE OF PLAY SETTINGS Austria-Czech-Denmark-Norway-Israel-France2

	Price	Bonus			Switch 1				
					Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
1	1	No Bonus			OFF	OFF	OFF	OFF	OFF
2	1			11 = 10	**ON**	OFF	OFF	OFF	OFF
3	1		6 = 5		OFF	**ON**	OFF	OFF	OFF
4	2	No Bonus			**ON**	**ON**	OFF	OFF	OFF
5	2			6 = 10	OFF	OFF	**ON**	OFF	OFF
6	2		3 = 5		**ON**	OFF	**ON**	OFF	OFF
7	3	No Bonus			OFF	**ON**	**ON**	OFF	OFF
8	3			4 = 10	**ON**	**ON**	**ON**	OFF	OFF
9	3		2 = 5		OFF	OFF	OFF	**ON**	OFF
10	4	No Bonus			**ON**	OFF	OFF	**ON**	OFF
11	4		3 = 10		OFF	**ON**	OFF	**ON**	OFF
12	5	No Bonus			**ON**	**ON**	OFF	**ON**	OFF
13	5			3 = 10	OFF	OFF	**ON**	**ON**	OFF
14	6	No Bonus			**ON**	OFF	**ON**	**ON**	OFF
15	6			4 = 20	OFF	**ON**	**ON**	**ON**	OFF
16	8	No Bonus			**ON**	**ON**	**ON**	**ON**	OFF
17	10	No Bonus			OFF	OFF	OFF	OFF	**ON**
18	10			3 = 20	**ON**	OFF	OFF	OFF	**ON**
19	20	No Bonus			OFF	**ON**	OFF	OFF	**ON**
20	20			3 = 50	**ON**	**ON**	OFF	OFF	**ON**
21	30	No Bonus			OFF	OFF	**ON**	OFF	**ON**
22	30			2 = 50	**ON**	**OFF**	**ON**	OFF	**ON**
23	50	No Bonus			OFF	**ON**	**ON**	OFF	**ON**
24	50			3 = 100	**ON**	**ON**	**ON**	OFF	**ON**
32	Free Play				**ON**	**ON**	**ON**	**ON**	**ON**

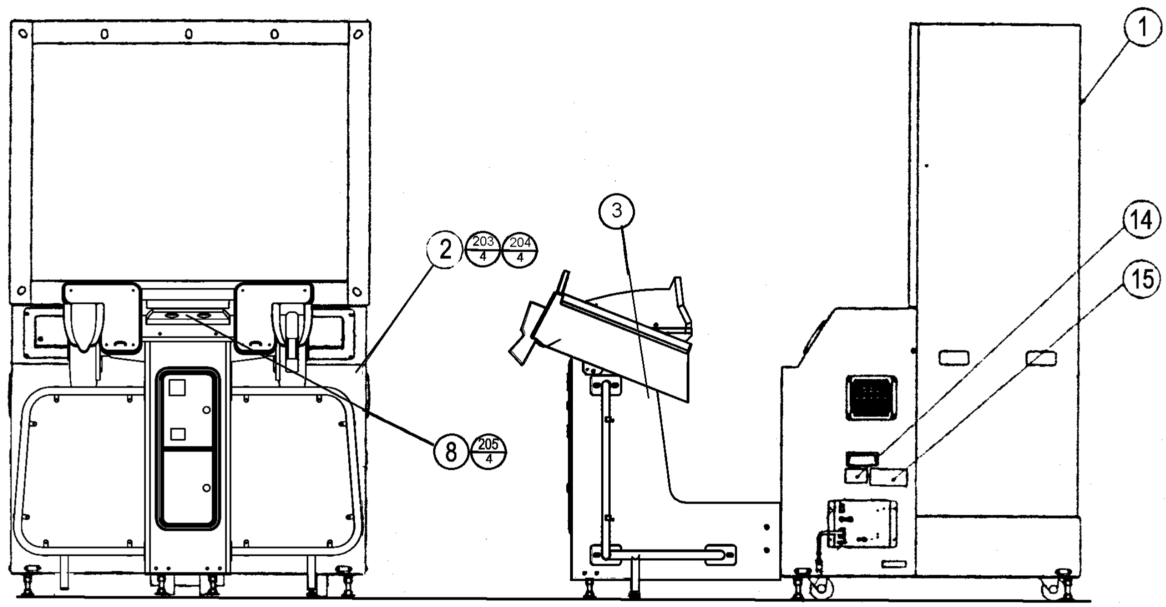
7. DESIGN RELATED PARTS



Item	Part No.	Description
1	HDT-0522UK	BILLBOARD PLATE
2	HDT-2001-B	BUTTON SHEET DX
3	HDT-2187UK	STICKER HOLSTER SIDE
4	HDT-2187UK	STICKER HOLSTER SIDE
5	HDT-2188UK	STICKER HOLSTER FRONT L
6	HDT-2198UK	STICKER HOLSTER FRONT R
7	HDT-0511UK	STICKER PTV SIDE
8	HDT-0524UK	STICKER BBD SIDE L
9	HDT-0525UK	STICKER BBD SIDE R
10	HDT-1062UK	STICKER LID UPPER
11	HDT-1072UK	STICKER LID LOWER
12	HDT-1151UK	GUARD PLATE L
13	HDT-1161UK	GUARD PLATE R
14	HDT-2001-C-01UK	STICKER CTRL PNL TOP ENG

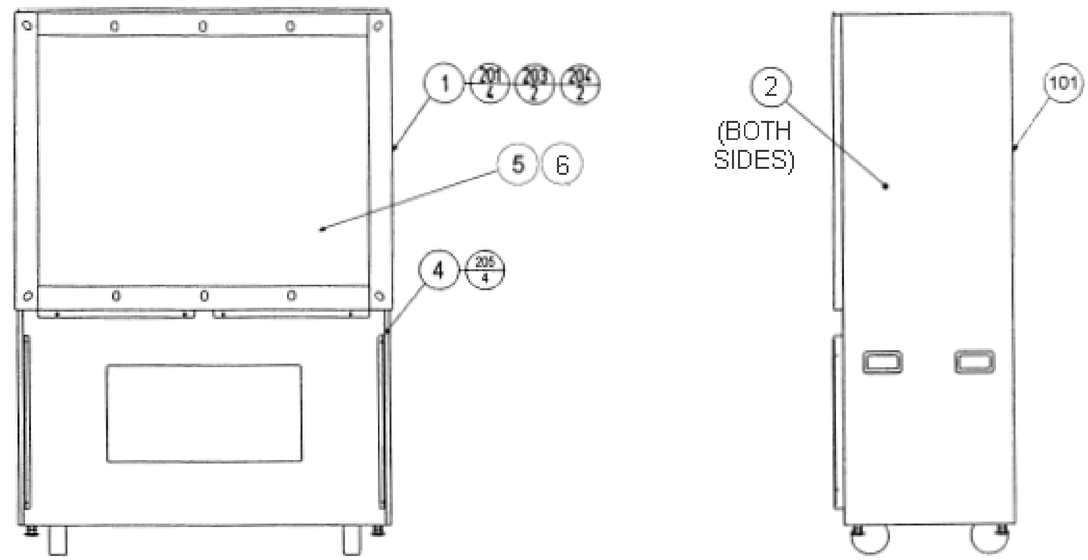
8. PARTS LIST

8.1. HDT-0000UK - TOP ASSY HOUSE OF THE DEAD3 DX



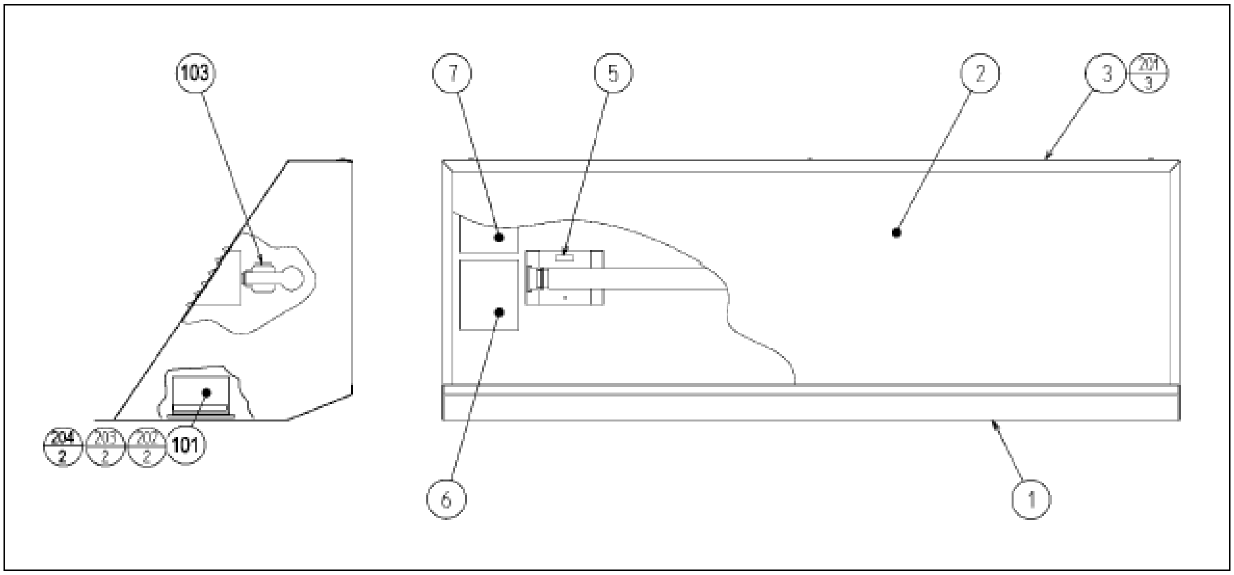
Item	Component Part	Qty.	Description	Component Reference
1	HDT-0500UK	1	ASSY PTV	
2	HDT-1000UK	1	ASSY PTV CABI DX	
3	HDT-1100UK	1	ASSY CONTROLLER CABINET	
8	HOD-2003	1	DENOMI PLATE	
9	SGM-4346	1	POLY COVER 1200X1200X1300	
10	SGM-4426	1	POLY COVER 800X750X900	
14	421-7987-HDT-D	1	STICKER ELEC SPEC HDT DX	NEXT TO AC UNIT
15	421-7988-91UK	2	STICKER SERIAL NUMBER UK	NEAR AC,CCT
16	LB1102	1	STICKER DANGEROUS VOLTAGE	ON MAIN LID
19	421-7020UK	2	STICKER CAUTION FORK	
23	HDT-INST-DX	1	ASSY INST KIT HDT DX	
24	PK0180	1	PALLET CABI HOD DELUXE	
25	PK0319	1	SLEEVE CTRL CABI HDT DX	
26	PK0178	1	PALLET GUN CABI	
27	PK0320	1	SLEEVE GUN CABI HDT DX	
28	PK0117	1	PALLET PTV TOSH ZMB	
29	PK0321	1	SLEEVE PTV HDT	
30	LB1046	1	LABEL TESTED FOR ELEC. SAFETY	
203	000-T00530-0B	4	M5X30 MSCR TH BLK	(2)-4
204	068-552016-0B	4	M5 WSHR 20OD FLT BLK	(2)-4
205	000-T00416-0C	4	M4X16 MSCR TH CRM	(8)-4

8.2. HDT-0500UK - ASSY PTV



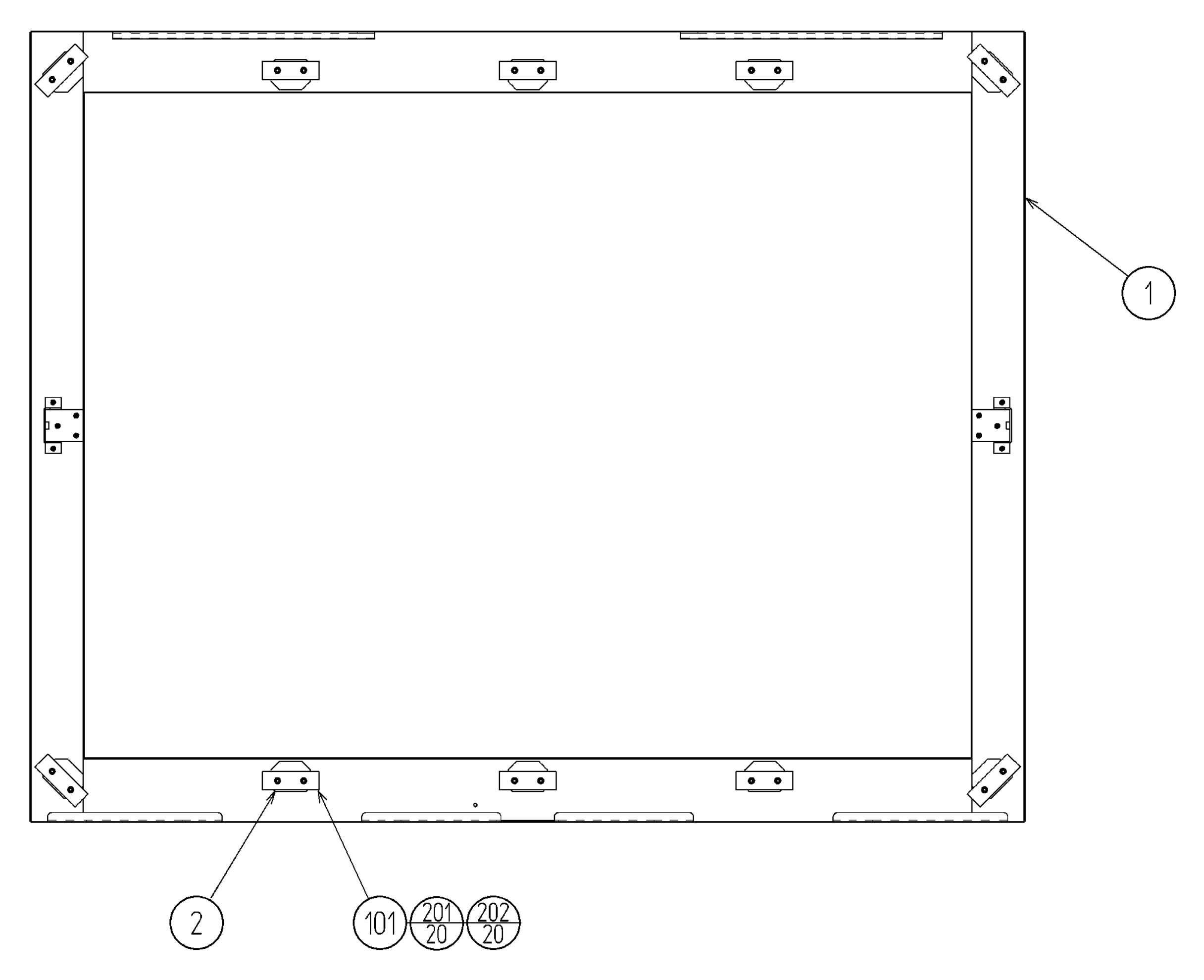
Item	Component Part	Qty.	Description	Component Reference
1	SPX-0530UK	1	ASSY MASK	
2	HDT-0511UK	2	STICKER PTV SIDE	
4	HOD-1101	2	PTV HOLDER	
5	SPX-0532UK	1	PROTECT SCREEN PTV	(101)-1
6	SPX-0533UK	2	RETAINING BRKT HORIZ PTV	(5)-2
101	200-5788-31	1	PROJECTION DSPL T 50TYPE 31K	
201	000-T00520-0B	4	M5X20 MSCR TH BLK	(1)-4
203	000-T00525-0B	2	M5X25 MSCR TH BLK	(1)-2
204	068-552016-0B	2	M5 WSHR 20OD FLT BLK	(1)-2
205	000-P00516-W	4	M5X16 MSCR PAN W/FS PAS	(4)-4
206	000-F00414	4	M4X14 MSCR CSK PAS	(1)-4

8.3. HDT-0520UK - ASSY BILLBOARD DX



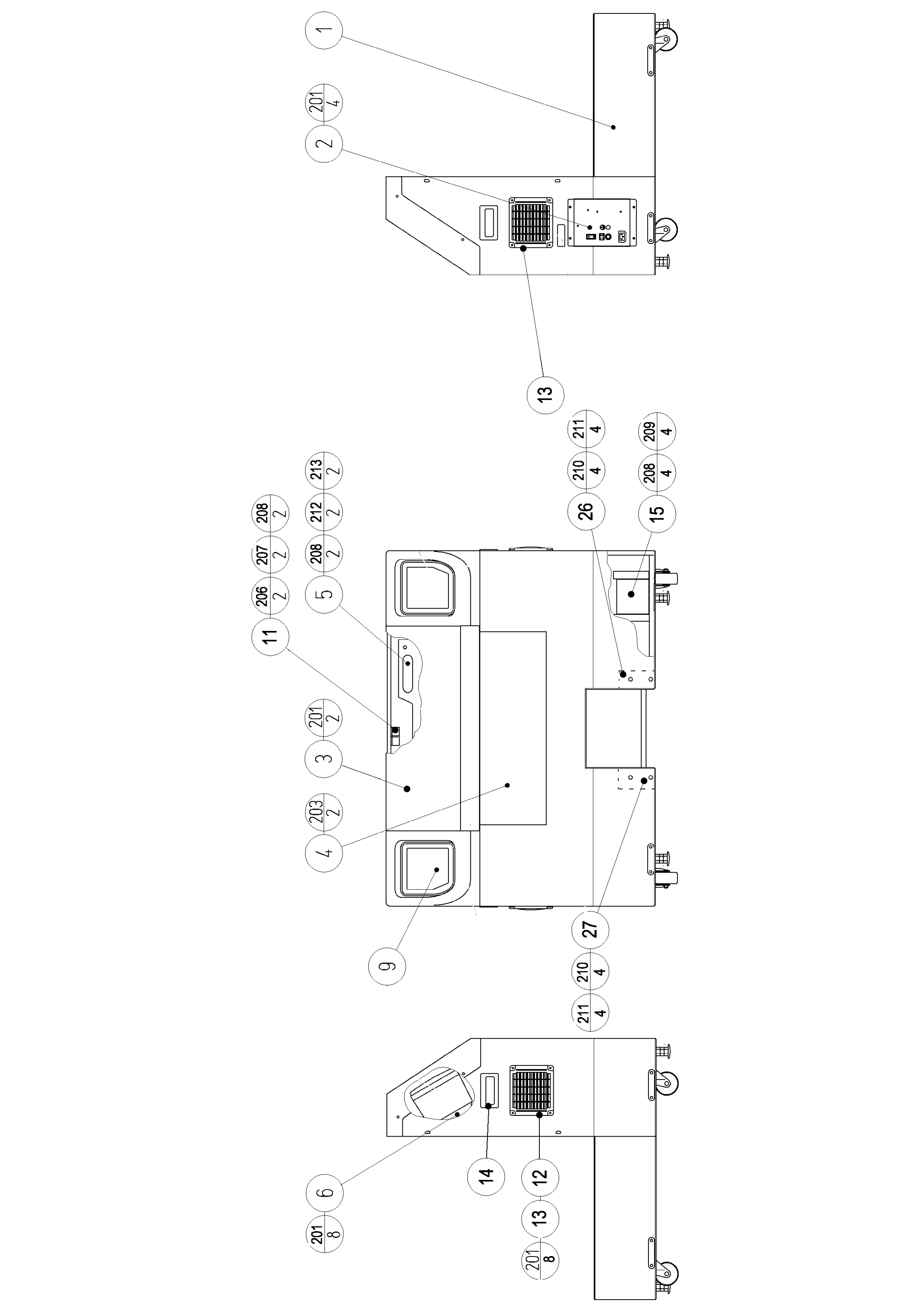
Item	Component Part	Qty.	Description	Component Reference
1	POD-0521UK	1	BILLBOARD BOX	
2	HDT-0522UK	1	BILLBOARD PLATE	
3	POD-0523	1	BILLBOARD SASH	
5	421-7501-16	1	STICKER 110V 30W	
6	LB1102	1	STICKER DANGEROUS VOLTAGE	
7	LB1104	1	STICKER CAUTION, HOT SURFACE	
8	HDT-0524UK	1	STICKER BBD SIDE L	
9	HDT-0525UK	1	STICKER BBD SIDE R	
101	390-5695-30-AUK	1	FL TRAY 100V 30W	
103	LT1014	1	TUBE FL 30W 36" DIA25mm	
201	000-T00412-0B	3	M4X12 MSCR TH BLK	(3)-3
202	050-F00400	3	M4 NUT FLG SER PAS	(101)-2,EARTH
203	068-441616	2	M4 WSHR 16OD FLT PAS	(101)-2
204	000-P00412	2	M4X12 MSCR PAN PAS	(101)-2,TERRY CLIPS
301	NCR-60420UK	1	WIRE HARN FL	

8.4. SPX-0530UK ASSY MASK



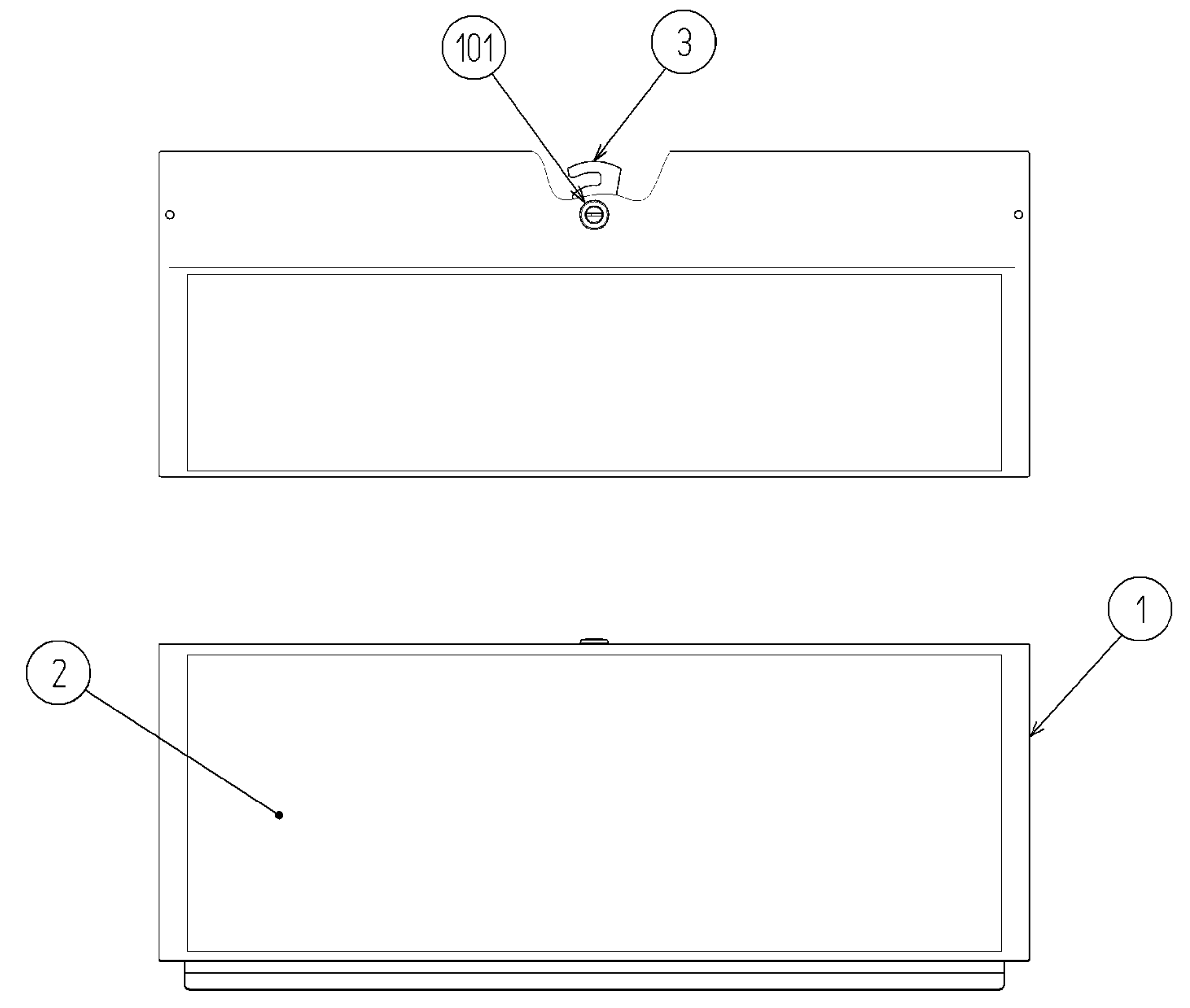
ITEM	PART NUMBER	QTY	DESCRIPTION	COMPONENT REF
1	HOD-1151	1	MASK BASE	
2	JPT-1082	10	IR COVER	
101	838-13145-02	10	LED BD GUN SENSE HOD	
201	050-U00300	20	M3 NUT NYLOK PAS	(101)-20
202	068-330808-PN	20	M3 WSHR 8OD FLT NYLON	(101)-20
203	050-F00400	1	M4 NUT FLG SER PAS	EARTH-1
301	SPY-60024	7	WIRE HARN MASK SHORT	
302	SPY-60025	2	WIRE HARN MASK LONG	
303	SPY-60026	1	WIRE HARN MASK INTO	
304	600-9120-44K	1	WIRE HARN EARTH 1200MM M4/M4	MASK TO AC BRKT

8.5. HDT-1000UK ASSY PTV CABI DX



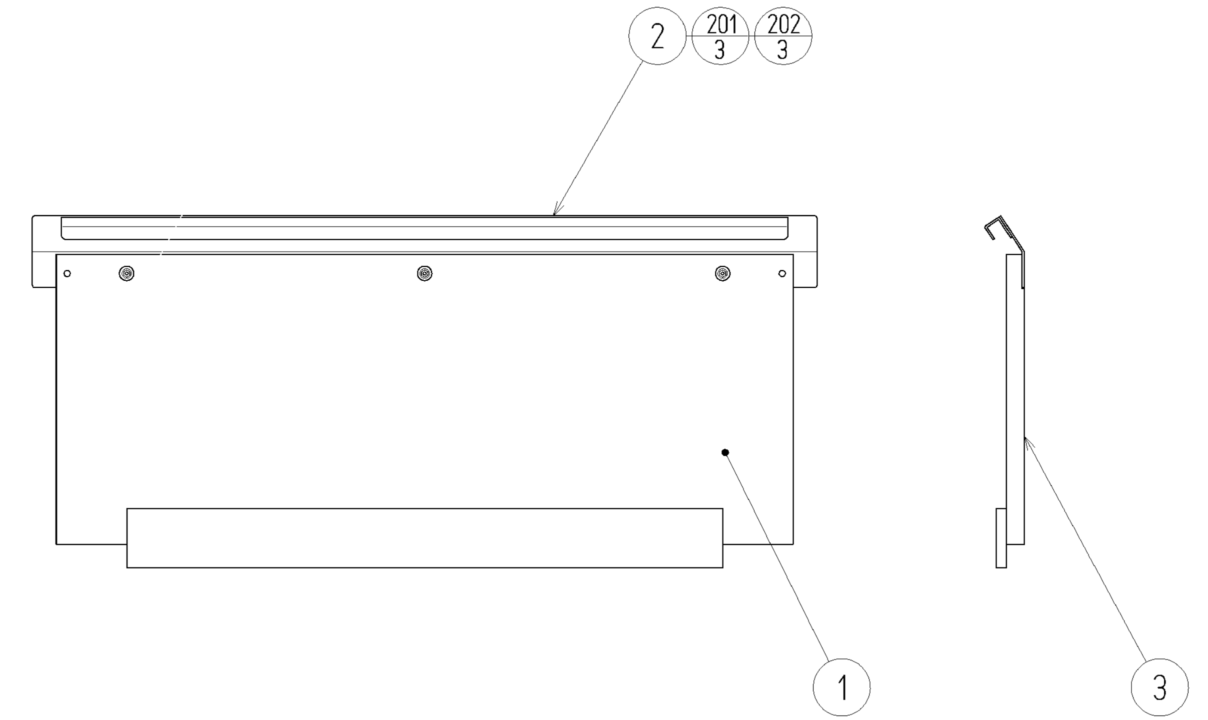
Item	Component Part	Qty.	Description	Component Reference
1	SPX-1002UK	1	PTV CABINET	
2	HOD-1020UK	1	ASSY AC UNIT UK	
3	HDT-1060UK	1	ASSY LID UPPER	
4	HDT-1070UK	1	ASSY LID LOWER	
5	HDT-4000UK	1	ASSY MAIN BD DX	
6	HOD-1070UK	2	ASSY SPEAKER UK	
9	SPX-1010UK	2	SPEAKER COVER	
11	HOD-1003	1	LOCKING BRKT HOD	
12	HDT-1530UK	1	FAN UNIT DC UK	
13	253-5460-01	2	AIR VENT BLACK	
14	253-5396-91	2	CABINET HANDLE	
15	HDT-4200UK	1	ASSY PWR SPLY	
26	HOD-1007	1	JOINT BRKT R	
27	HOD-1008	1	JOINT BRKT L	
101	354081	5	TWIST LOK BHKL-450-4	
102	280-A00964-WX	4	ROUTER TWIST D09 SO6.4 WOOD X	
201	000-T00420-0B	22	M4X20 MSCR TH BLK	(2)-4,(3)-2,(13)-8,(6)-8
203	000-P00420-W	2	M4X20 MSCR PAN W/FS PAS	(4)-2
206	000-P00425-W	2	M4X25 MSCR PAN W/FS PAS	(11)-2
207	050-F00400	2	M4 NUT FLG SER PAS	(11)-2
208	068-441616-0B	8	M4 WSHR 16OD FLT BLK	(11)-2,(15)-4,(5)-2
209	000-P00430-W	4	M4X30 MSCR PAN W/FS PAS	(15)-4
210	030-000840-SB	8	M8X40 BLT W/S BLK	(26,27)-4
211	068-852216-0B	4	M8 WSHR 22OD FLT BLK	(26,27)-4
212	032-000530	2	M5X30 BLT WING PAS	(5)-2
213	068-551616	2	M5 WSHR 16OD FLT PAS	(5)-2
301	SPY-60011UK	1	WIRE HARN TOWER EXT 1	

8.6. HDT-1060UK ASSY LID UPPER



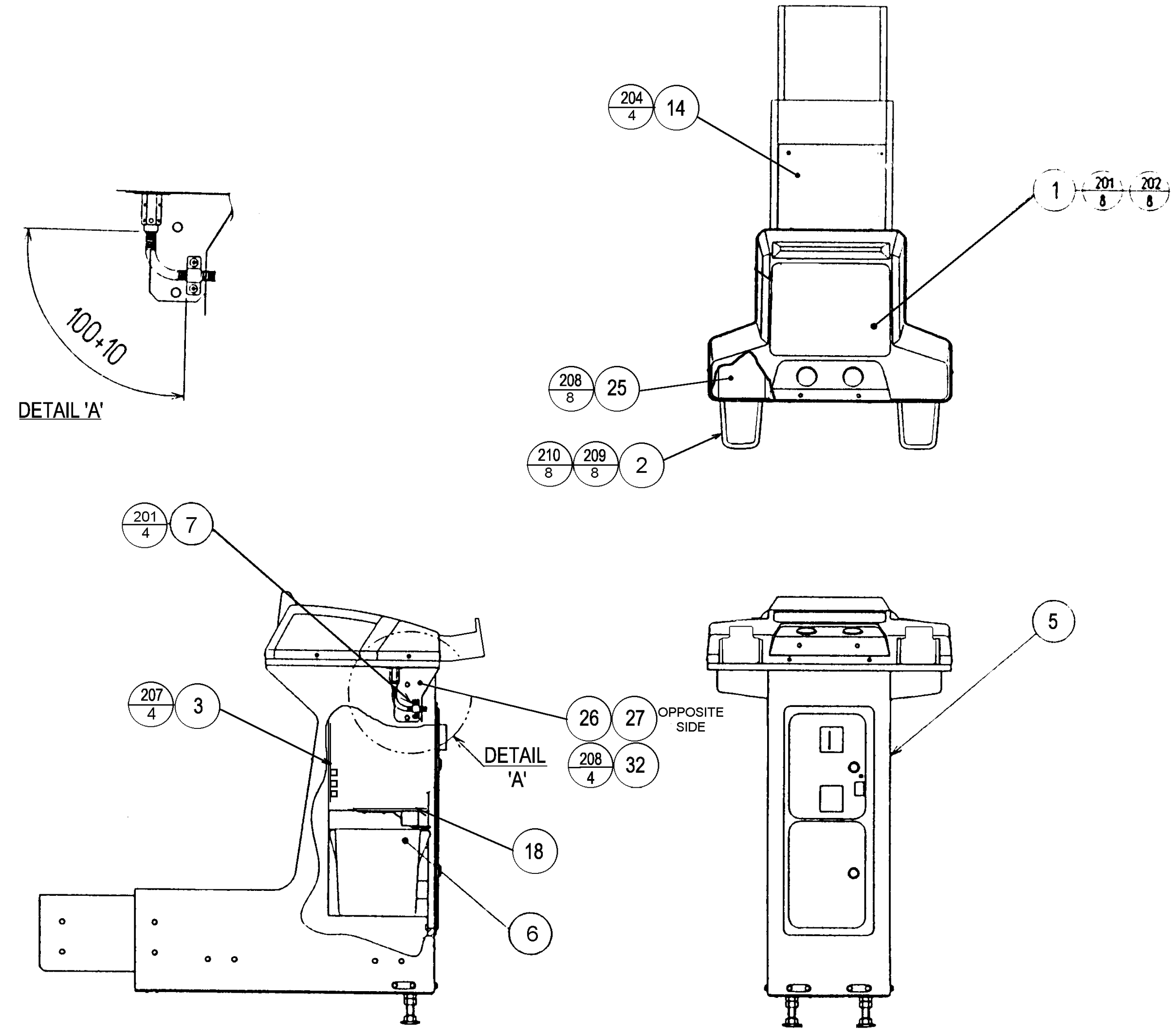
Item	Component Part	Qty.	Description	Component Reference
1	HOD-1051-A	1	FRONT LID U BLANK	
2	HDT-1062UK	1	STICKER LID UPPER	
3	TH1015UK	1	LOCKING TONGUE UK	
101	220-5575UK	1	LOCK	

8.7. HDT-1070UK ASSY LID LOWER



Item	Component Part	Qty.	Description	Component Reference
1	HOD-1061-AUK	1	FRONT LID L BLANK	
2	HOD-1062-A	1	FRONT LID BRKT BLANK	
3	HDT-1072UK	1	STICKER LID LOWER	
201	050-F00400	3	M4 NUT FLG SER PAS	(2)-3
202	060-F00400-0B	3	M4 WSHR FORM A FLT BLK	(2)-3

8.8. HDT-1100UK ASSY CONTROLLER CABINET

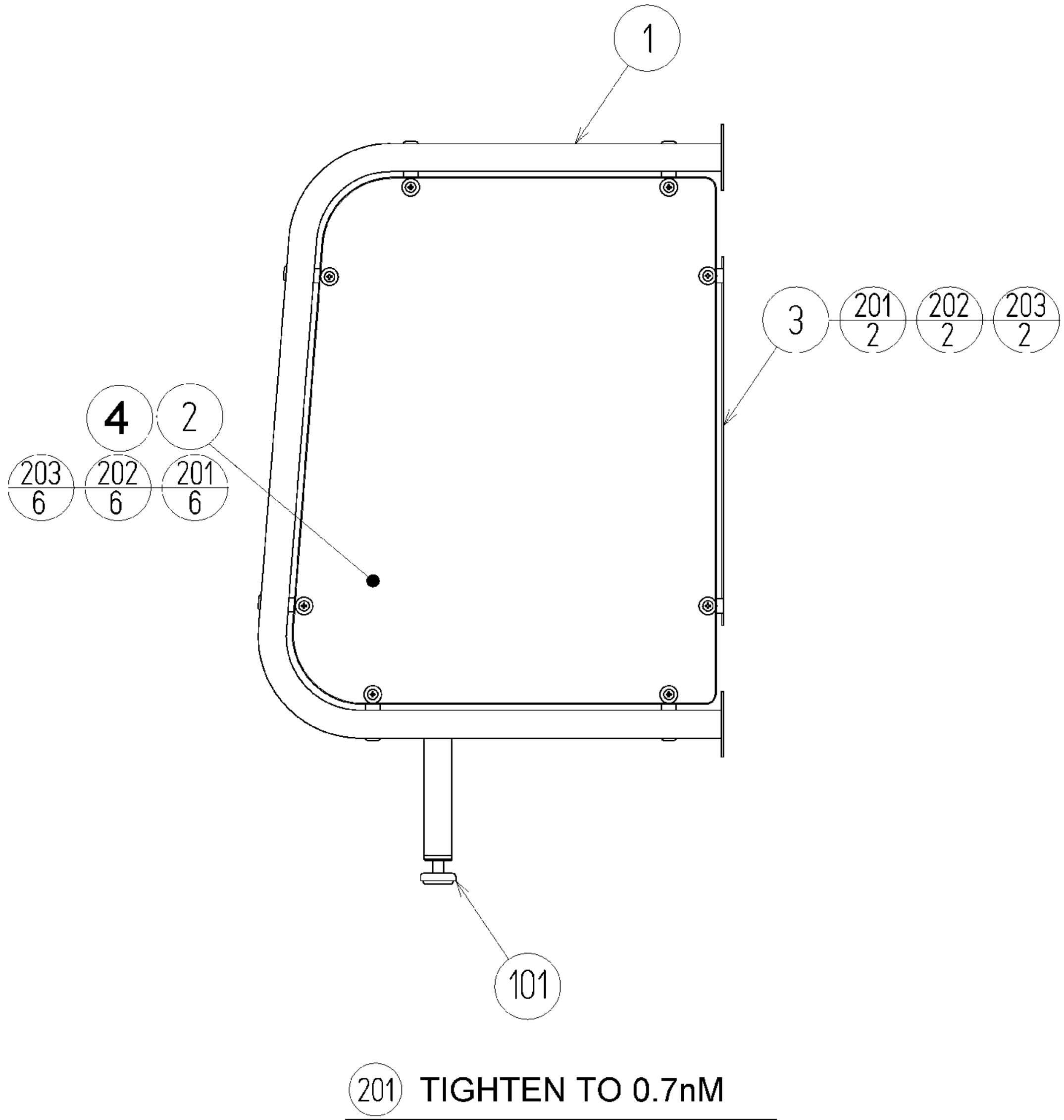


Item	Component Part	Qty.	Description	Component Reference
1	HDT-2000UK	1	ASSY CTRL PANEL DX	
2	MAZ-1102	2	HOLDER	
3	VTS-HOD-D	1	VTS BOARD HOD	
5	HOD-1302UK	1	GUN HOLDER CABI	
6	253-5366	1	CASH BOX	
7	JPT-3101	2	TUBE CLAMP	
12	HDT-2100	2	CONTROL UNIT	
14	HOD-1304	1	JOINT PART LID	
18	DUT-0302UK	1	COIN PATH PLATE	
25	SPY-1106	2	HOLDER BRKT	
26	HOD-1307-A	1	SIDE BRKT L BLANK	
27	HOD-1308-A	1	SIDE BRKT R BLANK	
30	HDT-1150UK	1	ASSY FENCE L	BUBBLE WRAP SEPARATELY
31	HDT-1160UK	1	ASSY FENCE R	BUBBLE WRAP SEPARATELY
32	105-5216	2	CHAIN BRKT	
201	000-T00416-0B	12	M4X16 MSCR TH BLK	(1)-8,(7)-4
202	068-441616-0B	8	M4 WSHR 16OD FLT BLK	(1)-8

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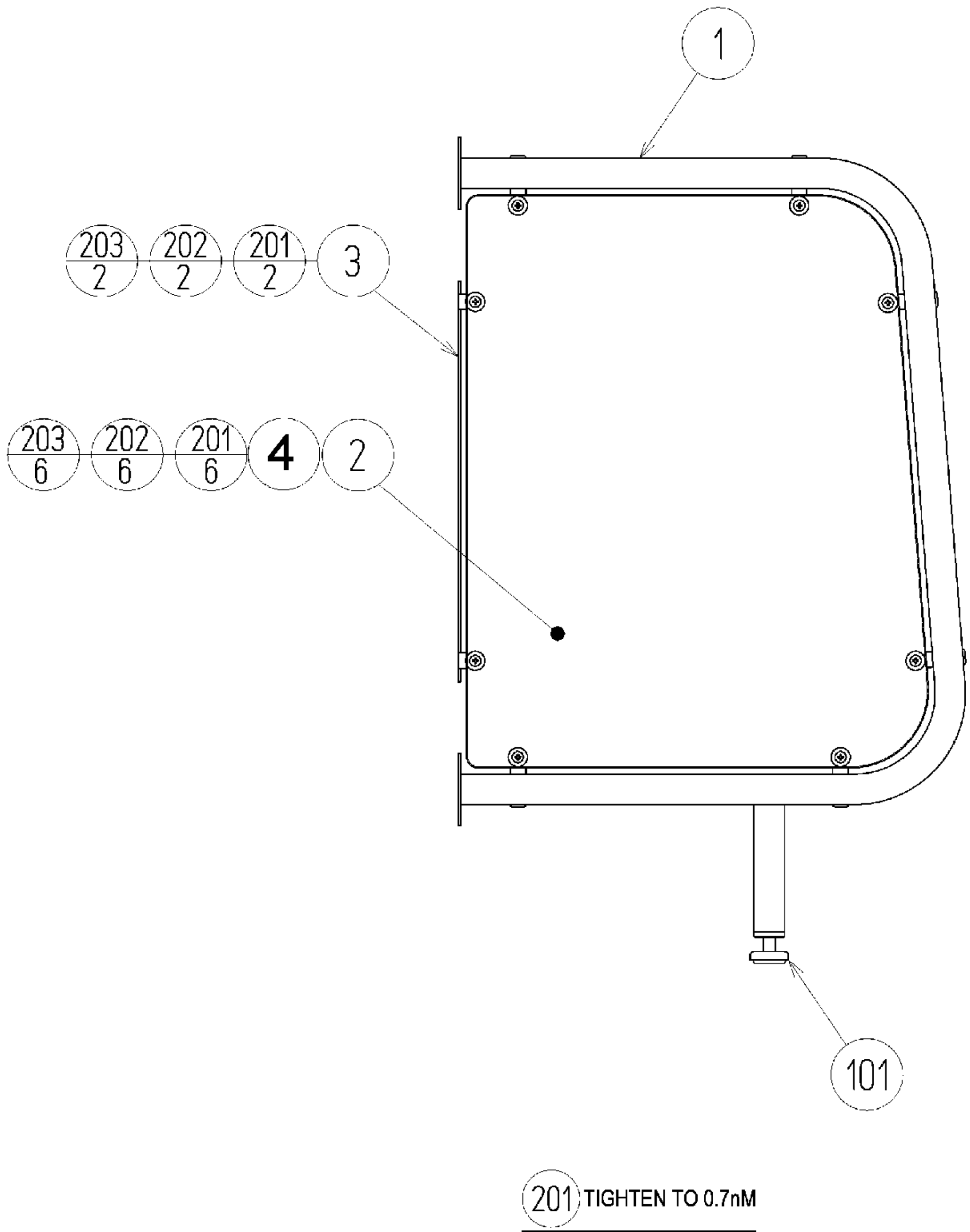
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ITEM	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
203	008-T00430-0B	8	M4X30 TMP PRF TH BLK	(12)-8
204	000-T00440-0B	4	M4X40 MSCR TH BLK	(14)-4
207	000-P00420-W	9	M4X20 MSCR PAN W/FS PAS	(3)-4,(18)-5
208	030-000630-SB	12	M6X30 BLT W/S BLK	(25)-8,(26,27)-4
209	030-000616-SB	8	M6X16 BLT W/S BLK	(24)-8
210	060-F00600-0B	8	M6 WSHR FORM A FLT BLK	(24)-8
211	000-P00408-W	2	M4X8 MSCR PAN W/FS PAS	EARTHS-2
212	008-T00408-0C	4	M4X8 TMP PRF TH CRM	(32)-4
301	SPY-60014UK	1	WIRE HARN TOWER EXT 2	
302	SPY-60015	1	WIRE HARN START EXT 2	
303	HDT-60002UK	1	WIRE HARN EXT 2	
304	600-9220-44K	1	WIRE HARN EARTH 2200mm M4/M4 K	LH GUN HOLDER TO AC BRKT
305	600-9040-44K	1	WIRE HARN EARTH 400mm M4/M4 K	LH GUN HOLDER TO RH GUN HOLDER

8.9. HDT-1150UK ASSY FENCE L



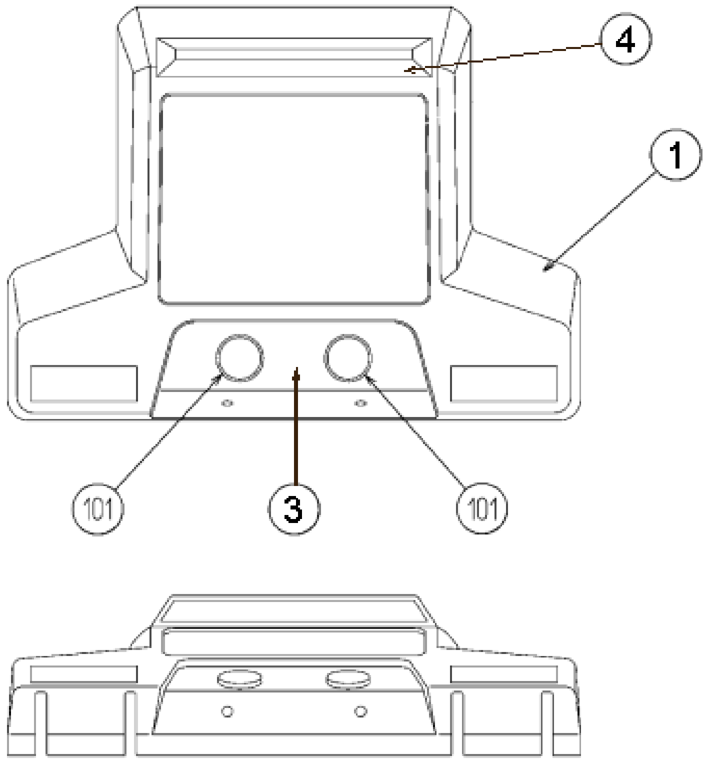
Item	Component Part	Qty.	Description	Component Reference
1	HOD-1351	1	PIPE L	
2	HDT-1151UK	1	GUARD PLATE L	
3	HOD-0004UK	2	PLATE HOLDER	
4	HDT-1152UK	1	PLATE GUARD BASE	
101	601-6076-OBUK	1	LEG ADJUSTER 32MM BLACK	
201	000-T00412-0B	8	M4X12 MSCR TH BLK	(2)-6,(3)-2
202	068-441616-0B	8	M4 WSHR 16OD FLT BLK	(2)-6,(3)-2
203	050-C00400-3B	8	M4 NUT DOME TYPE 3 BLK	(2)-6,(3)-3

8.10. HDT-1160UK ASSY FENCE R



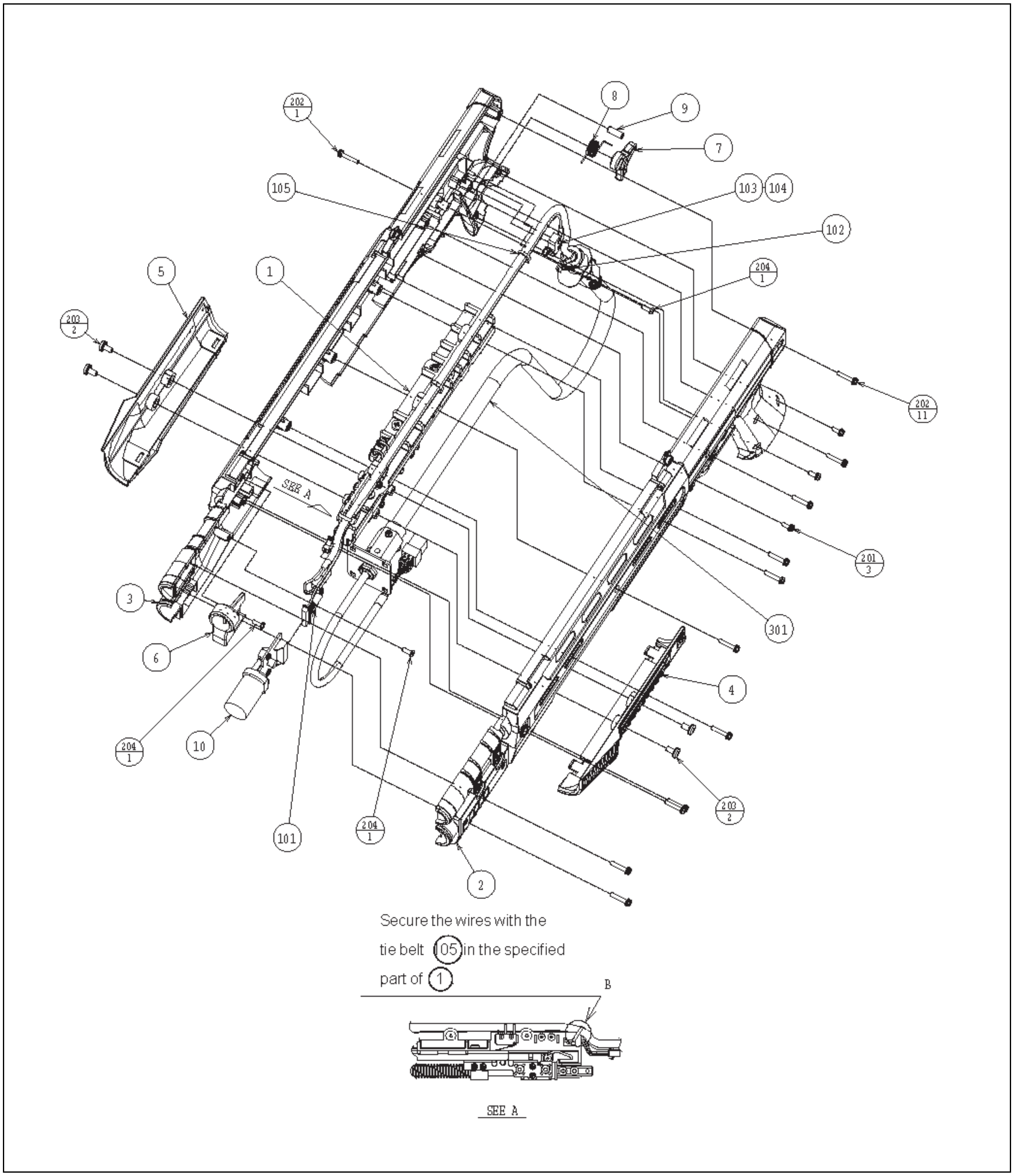
Item	Component Part	Qty.	Description	Component Reference
1	HOD-1361	1	PIPE R	
2	HDT-1161UK	1	GUARD PLATE R	
3	HOD-0004UK	2	PLATE HOLDER	
4	HDT-1162UK	1	PLATE GUARD BASE	
101	601-6076-OBUK	1	LEG ADJUSTER 32MM BLACK	
201	000-T00412-0B	8	M4X12 MSCR TH BLK	(2)-6,(3)-2
202	068-441616-0B	8	M4 WSHR 16OD FLT BLK	(2)-6,(3)-2
203	050-C00400-3B	8	M4 NUT DOME TYPE 3 BLK	(2)-6,(3)-2

8.11. HDT-2000UK ASSY CTRL PANEL DX



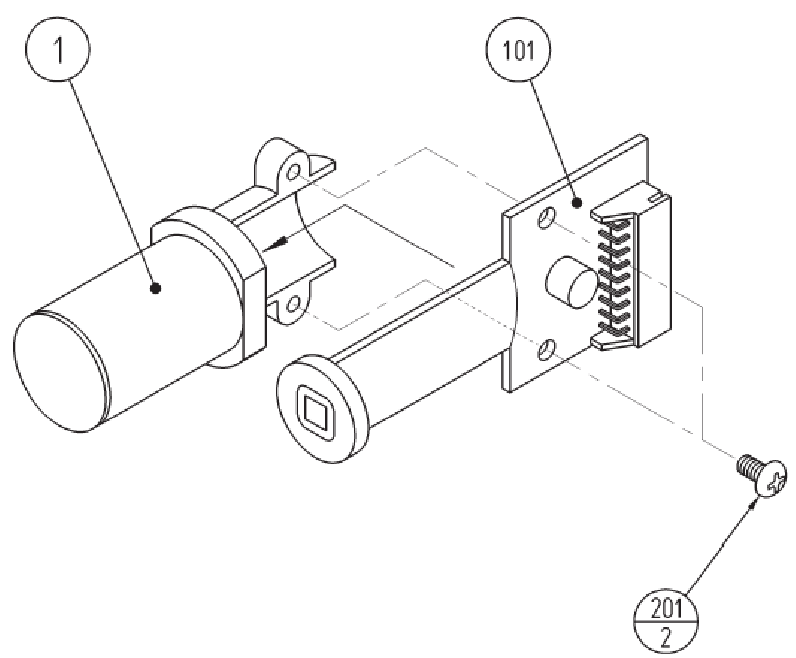
Item	Component Part	Qty.	Description	Component Reference
1	HDT-2001-A-W	1	CTRL PNL BLANK W/NUT PLATES	
3	HDT-2001-B	1	BUTTON SHEET DX	
4	HDT-2001-C-01UK	1	STICKER CTRL PNL TOP ENG	
101	509-5712-01S	2	SW PB W/L 6V YELLOW	
301	HOD-60020	1	WIRE HARN CONTROL PANEL	

8.12. HDT-2100 CONTROL UNIT



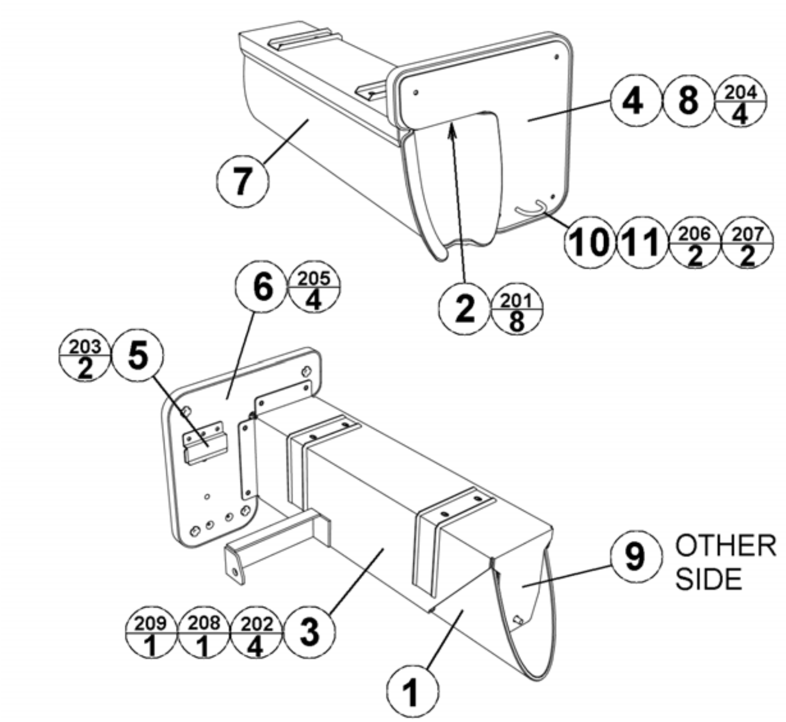
ITEM NO.	PART NO.	DESCRIPTION NOTE
1	HDT-2120	ASSY SLIDE MECHA
2	HDT-2101	COVER L
3	HDT-2102	COVER R
4	HDT-2103	SLIDE GRIP L
5	HDT-2104	SLIDE GRIP R
6	HDT-2105	FRONT SIGHT
7	HDT-2106	TRIGGER
8	HDT-2107	TRIGGER SPRING
9	HDT-2108	STOPPER PIN
10	JPT-2030	SENSOR UNIT
101	280-5124-02	NYLON CLAMP NK02
102	280-5124-03	NYLON CLAMP NK03
103	310-5029-D20	SUMITUBE F D 20MM
104	509-5080	SW MICRO TYPE (SS-5GL2)
105	601-0460	PLASTIC TIE BELT 100 MM
201	FAS-000092	M SCR PH W/SMALL FS BLK M3•~8
202	FAS-000093	M SCR PH W/SMALL FS BLK M3•~16
203	FAS-000094	M SCR BIND H W/TOOTH BLK M4•~8
204	FAS-120023	TAP SCR P-TITE PH 3•~8
301	HDT-60007	WH CONTROL UNIT

8.13. SENSOR UNIT (JPT-2030)



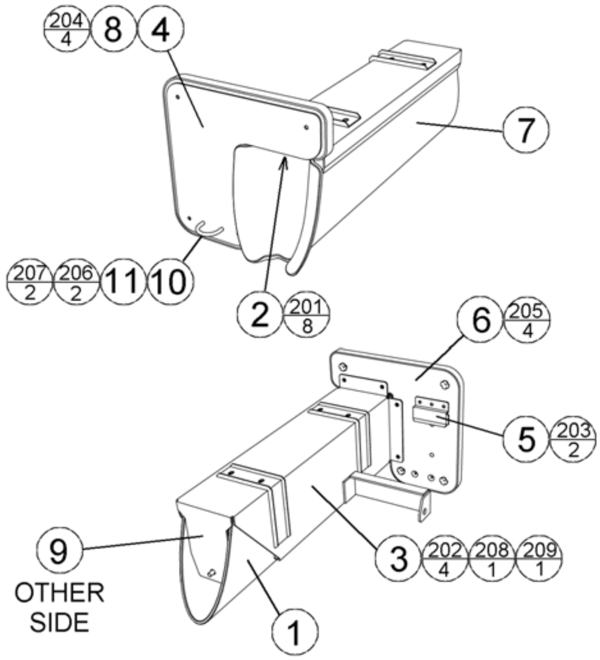
ITEM NO.	PART NO.	DESCRIPTION NOTE
1	JPT-2031	SENSOR HOLDER
101	838-13144	SENSOR BD GUN SENSE
201	012-P00306	TAP SCR #2 PH 3X6

8.14. HDT-2180UKASSY GUN HOLDER W/TETHER L



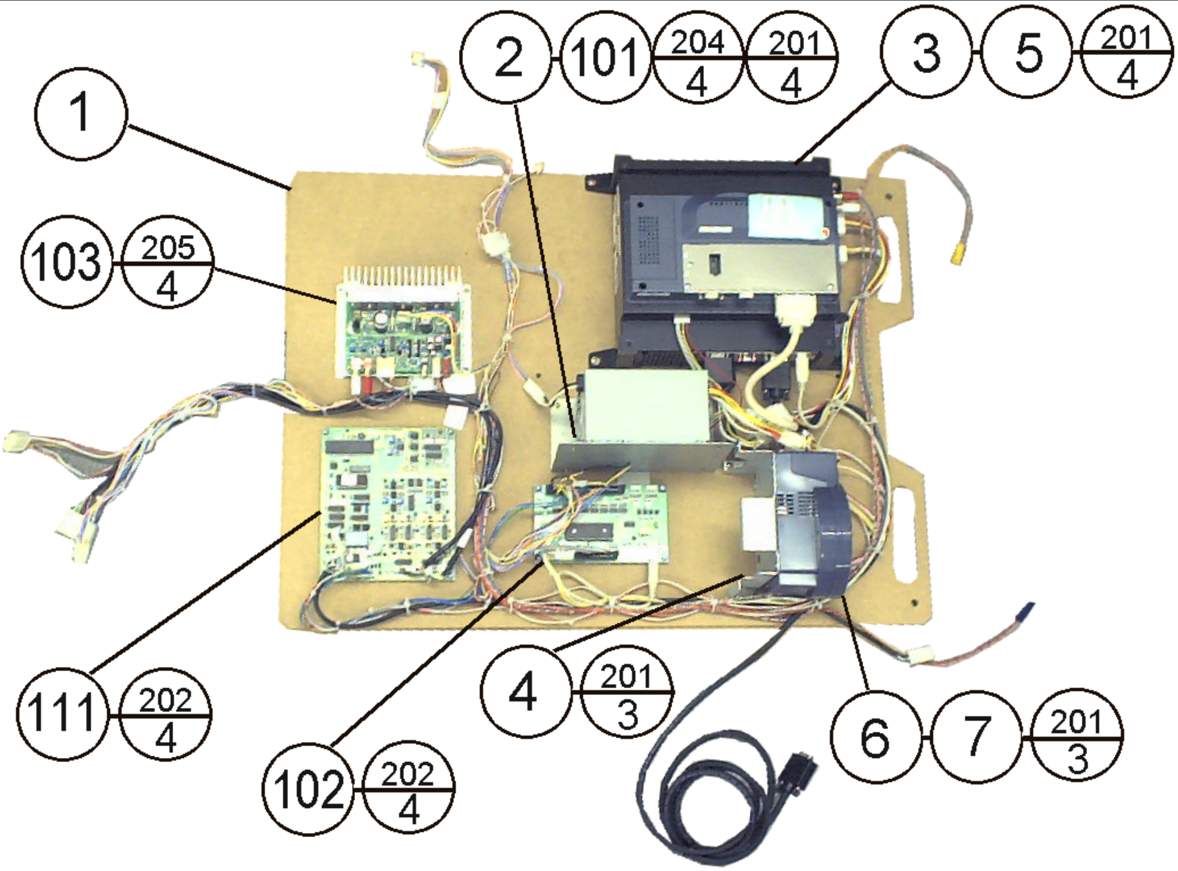
Item	Component Part	Description	Qty.	Component Reference
1	HDT-2181UK	GUN HOLSTER	1	
2	HDT-2182UK	GUN HOLSTER SUPPORT	1	
3	HDT-2183UK	GUN HOLSTER BRKT L	1	
4	HDT-2184UK	PLATE HOLDER	1	
5	HDT-2185UK	PLATE HOLDER BRKT L	1	
6	HDT-2186UK	MDF HOLDER BASE L	1	
7	HDT-2187UK	STICKER HOLSTER SIDE	1	(1)-1
8	HDT-2188UK	STICKER HOLSTER FRONT L	1	(4)-1
9	HDT-2197UK	GUN CUSHION	1	(2)-1
10	RTS-0306	MIC BOX U-BOLT	1	(4)-1
11	HDT-2199UK	GUN TETHER DX	1	
201	000-T00512-0B	M5X12 MSCR TH BLK	8	(2)-8
202	008-P00620-0B	M6X20 TMP PRF TH BLK	4	(3)-4
203	000-P00416-WB	M4X16 MSCR PAN W/FS BLK	2	(5)-2
204	008-T00416-0B	M4X16 TMP PRF TH BLK	4	(4)-4
205	030-000616-0B	M6X16 BLT BLK	4	(6)-4
206	060-F00300	M3 WSHR FORM A FLT PAS	2	(10)-2
207	050-U00300	M3 NUT NYLOK PAS	2	(10)-2
208	050-U00600	M6 NUT NYLOK PAS	1	(3)-1
209	068-651616-0B	M6 WSHR 16OD FLT BLK	1	(3)-1

8.15. HDT-2190UKASSY GUN HOLDER W/TETHER R



Item	Component Part	Description	Qty.	Component Reference
1	HDT-2181UK	GUN HOLSTER	1	
2	HDT-2182UK	GUN HOLSTER SUPPORT	1	
3	HDT-2193UK	GUN HOLSTER BRKT R	1	
4	HDT-2184UK	PLATE HOLDER	1	
5	HDT-2195UK	PLATE HOLDER BRKT R	1	
6	HDT-2196UK	MDF HOLDER BASE R	1	
7	HDT-2187UK	STICKER HOLSTER SIDE	1	(1)-1
8	HDT-2198UK	STICKER HOLSTER FRONT R	1	(4)-1
9	HDT-2197UK	GUN CUSHION	1	(2)-1
10	RTS-0306	MIC BOX U-BOLT	1	(4)-1
11	HDT-2199UK	GUN TETHER DX	1	
201	000-T00512-0B	M5X12 MSCR TH BLK	8	(2)-8
202	008-P00620-0B	M6X20 TMP PRF TH BLK	4	(3)-4
203	000-P00416-WB	M4X16 MSCR PAN W/FS BLK	2	(5)-2
204	008-T00416-0B	M4X16 TMP PRF TH BLK	4	(4)-4
205	030-000616-0B	M6X16 BLT BLK	4	(6)-4
206	060-F00300	M3 WSHR FORM A FLT PAS	2	(10)-2
207	050-U00300	M3 NUT NYLOK PAS	2	(10)-2
208	050-U00600	M6 NUT NYLOK PAS	1	(3)-1
209	068-651616-0B	M6 WSHR 16OD FLT BLK	1	(3)-1

8.16. HDT-4000UK ASSY MAIN BD DX

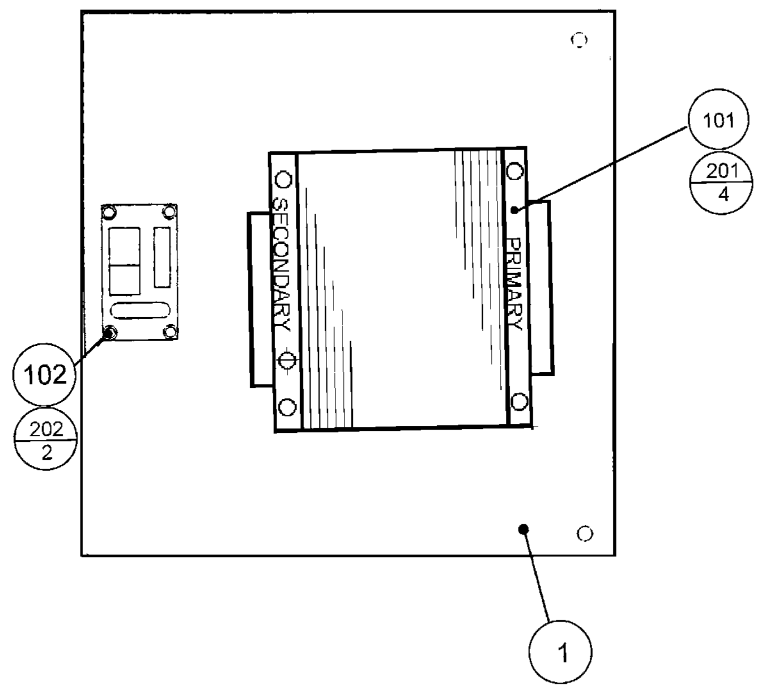


Item	Component Part	Qty.	Description	Component Reference
1	SPY-4001UK	1	WOODEN BASE MAIN BD DX	
2	TMB-4003	1	SW REGU BRKT	
3	843-0001D-12	1	ASSY CASE BOX COM NAO DIMM EXP	
4	105-5435	1	GD DRIVE BRKT STD	
5	LB1101	1	LABEL WARNING BATTERY	
6	610-0617	1	GD-ROM DRIVE UNIT NAOMI	
7	610-0652-0001	1	GD SOFT HDT	
8	LB1111	1	STICKER PLEASE RECYCLE	
9	253-5508-0348	1	KEY CHIP	
101	400-5443	1	SW REGU FOR CHIHIRO	
102	837-13551-92	1	I/O CONTROL BD FOR JVS	
103	838-13616	1	AUDIO POWER AMP 2CH	
104	280-A00964-WX	7	ROUTER TWIST D09 SO6.4 WOOD X	
105	354081	6	TWIST LOK BHKL-450-4	
106	354083	6	(A) TWIST N LOK BHKL-750-4	
110	838-13143-08	1	IC BD GUN SENSE SPY	

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ITEM	PART NUMBER	QTY	DESCRIPTION	COMPONENT REFERENCE
201	000-P00416-W	11	M4X16 MSCR PAN W/FS PAS	(2)-4,(3)-4,(4)-3 (CHIHIRO FIXINGS)
202	012-P00325	8	N4X1" S/TAP PAN PAS	(102)-4,(110)-4
204	000-P00408-W	4	M4X8 MSCR PAN W/FS PAS	(101)-4
205	012-P03512-F	4	N6X1/2" S/TAP FLG PAS	(103)-4
206	012-P00410-F	4	N8X3/8" S/TAP FLG PAS	(6)-4
301	SPY-60010UK	1	WIRE HARN HIGH FRQNCY JUMPER	CN1 ON IC BD GUN SENSE SPY
302	600-7159-039	1	WIRE HARN JVS PWR 039CM	
303	SPY-60009	1	WIRE HARN CTRL BD RECIEVER	
304	HDT-60006UK	1	WIRE HARN AC MAIN BD	
305	SMB-60013	1	WIRE HARN SPEAKER L	
306	SMB-60014	1	WIRE HARN SPEAKER R	
307	SPY-60005	1	WIRE HARN AUDIO L	
308	SPY-60006	1	WIRE HARN AUDIO R	
309	HDT-60003UK	1	WIRE HARN SW CONTROL	
310	600-7009-2500	1	ASSY RGB CA D-SUB 15P 2500MM	
311	HDT-60100UK	1	WH POWER GD ROM	
313	600-7141-100	1	CABLE JVS TYPE A-B 100CM	
315	600-7242-250	1	CABLE SCSI ST-L TYPE1 250MM	

8.17. HDT-4200UK ASSY PWR SPLY

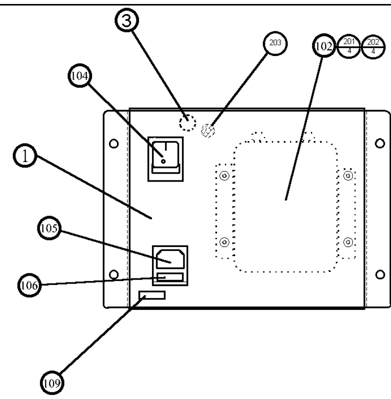


Item	Component Part	Qty.	Description	Component Reference
1	HOD-4101UK	1	WOODEN BASE PWR SPLY	
101	560-5422UK	1	XFMR NOB	
102	838-11856CE-02	1	CONN BD W/FUSE 6.3A CE	
201	000-P00416-W	4	M4X16 MSCR PAN W/FS PAS	(XFMR)-4
202	012-P00325	2	N4X1" S/TAP PAN PAS	(CONN BD)-2
301	HDT-60005UK	1	WIRE HARN AC-CONN BD	

8.18. HDT-INST-DX ASSY INST KIT HDT DX

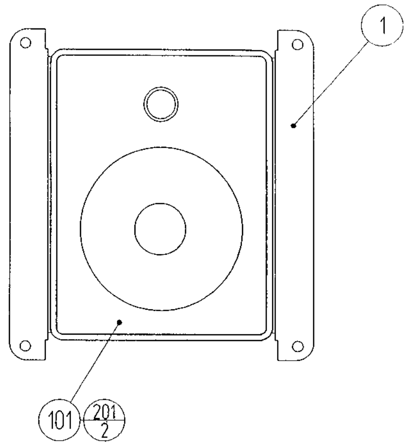
Item	Component Part	Qty.	Description	Component Reference
1	HDT-0520UK	1	ASSY BILLBOARD DX	
2	HOD-0006	2	L BRKT	
4	440-CS0186UK	1	STICKER C EPILEPSY MULTI	
6	HDT-2180UK	1	ASSY GUN HOLDER W/TETHER L	
7	HDT-2190UK	1	ASSY GUN HOLDER W/TETHER R	
22	PK0318	1	CARTON BOX INST KIT HDT DX	
23	SAECE-XXX	1	DECLARATION OF CONFORMITY	DECLARATION OF CONFORMITY HDTD
24	HDT-2002UK	1	INST PLATE HDT DX MULTI	
101	290094	0.08	WRAP BUBBLE (SM) 600MM X 100M	
201	030-000850-SB	4	M8X50 BLT W/S BLK	FENCE L+R-2EA
202	030-000830-SB	8	M8X30 BLT W/S BLK	FENCE L+R-4EA
203	029-F00625-0B	4	M6X25 SKT CSK BLK	(6)-2, (7)-2
205	000-T00420-0B	4	M4X20 MSCR TH BLK	FENCE L+R-2EA
206	068-441616-0B	4	M4 WSHR 16OD FLT BLK	FENCE L+R-2EA
207	030-000840-SB	8	M8X40 BLT W/S BLK	(2)-8
208	068-852216-0B	24	M8 WSHR 22OD FLT BLK	(2)-8,FENCE L+R-6EA, (CABI)-4
209	030-000860-0B	4	M8X60 BLT BLK	(CABI)-4
401	420-6620UK	1	SERVICE MANUAL GD ROM SYSTEM	
402	OS1019	2	SELF SEAL BAG 9X12.3/4	
403	420-6742-01UK	1	SERVICE MANUAL HDT DX	
405	390-5160	1	LAMP WG B TYPE 6V 3W (C2R)	
406	509-5080	2	SW MICRO TYPE (SS-5GL2)	
413	514-5078-5000	1	FUSE 5X20 CERAMIC SB 5000mA	

8.19. HOD-1020UK ASSY AC UNIT



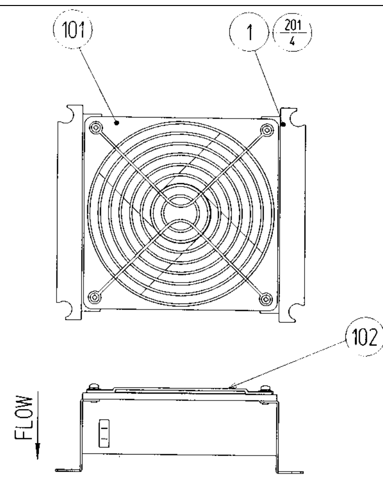
INDENT	PART NO.	QTY	DESCRIPTION	COMPONENT REF
1	HOD-1021UK	1	AC BRKT UK	
3	LB1096	1	STICKER PROTECTIVE EARTH	(EARTH STUD)
102	EP1379	1	FILTER EMI 10A ARCOTRONICS	
104	SW1109	1	SWITCH ROCKER 250V AC	
105	EP1302	1	EUROSOCKET FUSED 1OA 250Vac	
106	514-5078-5000	1	FUSE 5X20 CERAMIC SB 5000mA	
107	310-5029-D508	0.04	HEAT SHRINK SLEEVING 50.8DIA	
109	421-6595-5000-T	1	STICKER FUSE 5000mA TYPE T	
201	000-P00308	4	M3X8 MSCR POSI PAN PAS	(102)-4
202	060-F00300	4	M3 WSHR FORM A FLT PAS	(102)-4
203	050-F00400	2	M4 NUT FLG	EARTH STUD
301	600-6911-049UK	1	WIRE HARN AC BRKT (JPT)	
302	600-7118-002UK	1	WIRE HARN AC OUT (PRIMARY)	
303	600-9040-45U	1	WIRE HARN EARTH 400mm M4/M5	AC BRKT - XFMR

8.20. HOD-1070UK ASSY SPEAKER



ITEM	PART NO.	QTY	DESCRIPTION	COMPONENT REF
1	CPT-1061UK	1	SPEAKER BRKT UK	
101	130-5096	1	ASSY SERVO SPEAKER BOX	
201	000-P00512-W	2	M5X12 MSCR POSI PAN W/FS PAS	(101)-2
301	HOD-60025	1	WIRE HARN SPEAKER UNIT	

8.21. HDT-1530UK ASSY FAN UNIT DC UK



Item	Component Part	Qty.	Description	Component Reference
1	105-5340-01	2	FAN BRKT LONG	
101	EC814500	1	12V DC FAN 120MM KD1	
102	FN1012	1	MESH GUARD METAL 120mm FAN	
201	000-P00312-W	4	M3X12 MSCR PAN W/FS PAS	(1)-4
301	HDT-60004UK	1	WH 12V FAN LINK	

9. APPENDIX A - ELECTRICAL SCHEMATIC

9.1. WIRE COLOURS

THE WIRE COLOUR CODE IS AS FOLLOWS:

A	PINK
B	SKY BLUE
C	BROWN
D	PURPLE
E	LIGHT GREEN

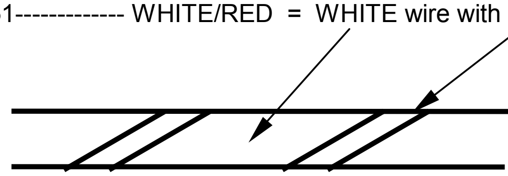
Wires other than those of any of the colours listed above will be displayed by 2 alphanumeric characters:

1	RED
2	BLUE
3	YELLOW
4	GREEN
5	WHITE
7	ORANGE
8	BLACK
9	GREY

If the right hand side numeral of the code is 0, then the wire will be of a single colour shown by the left hand side numeral (see the list above).

Note 1: If the right hand side alphanumeric is not 0, that particular wire has a spiral colour code. The left hand side character shows the base colour and the right hand side one, the spiral colour.

[Example] 51------------- WHITE/RED = WHITE wire with RED stripes

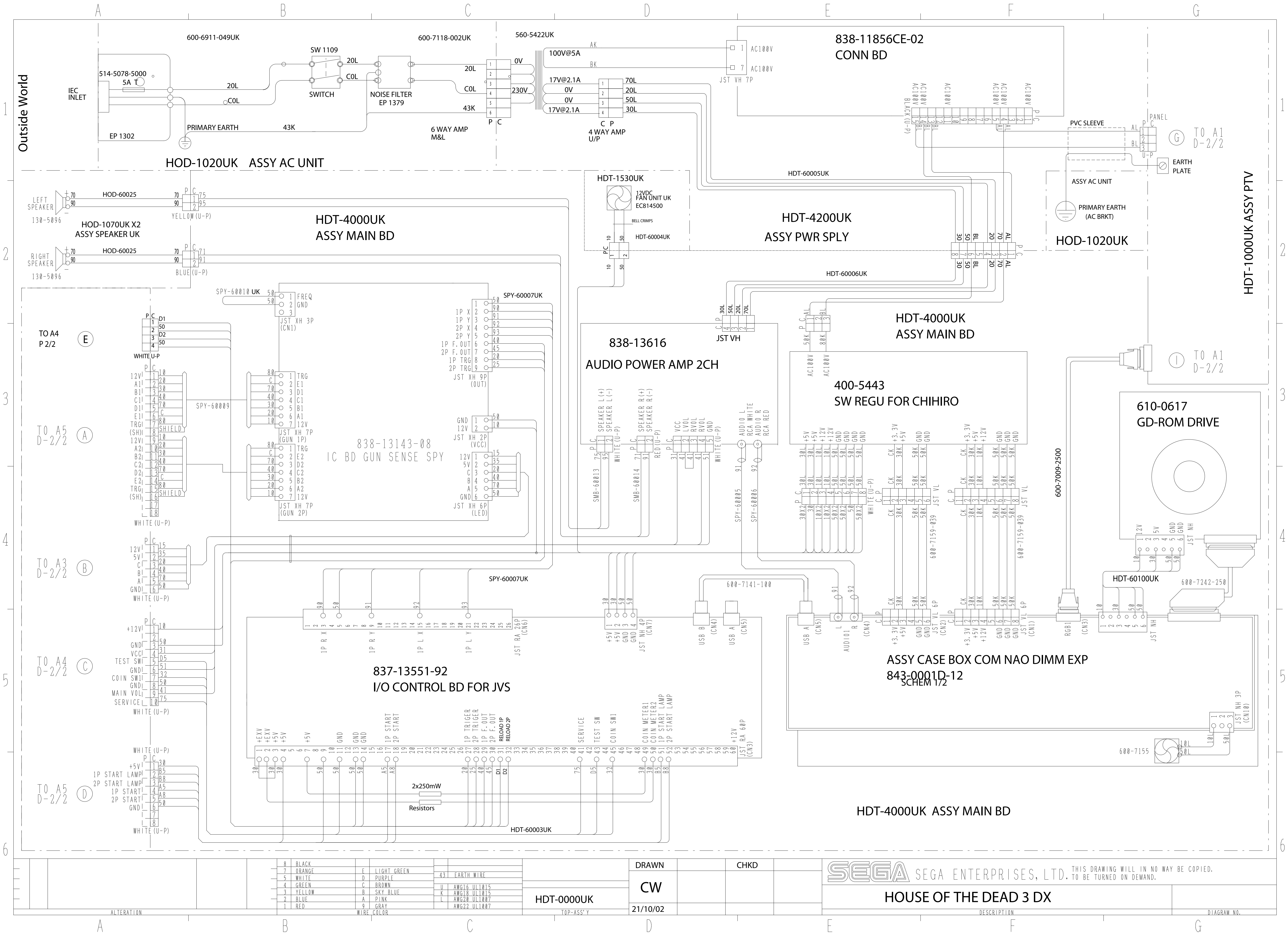


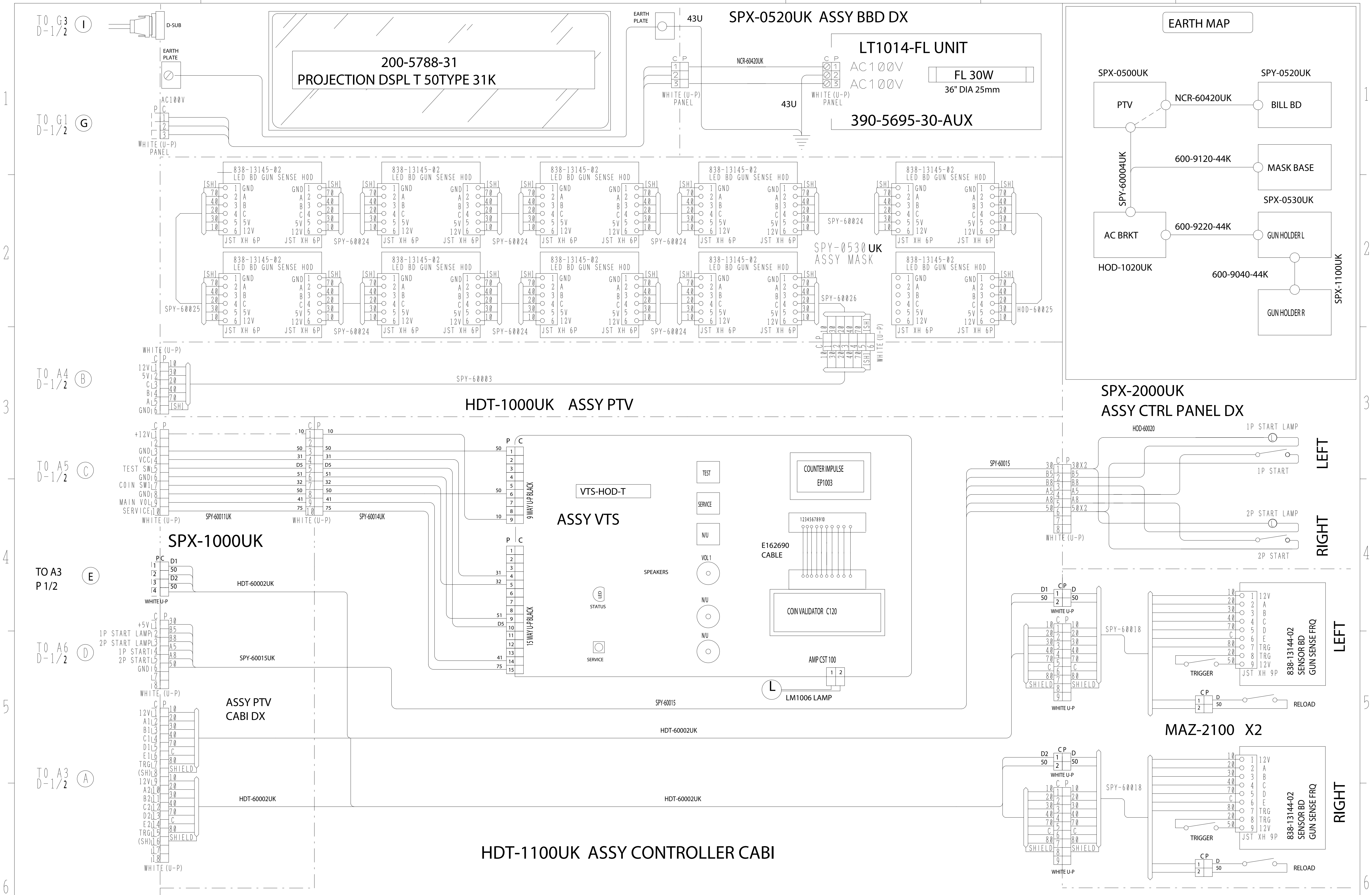
Note 2: The character following the wire colour code indicates the size of the wire.

K:	AWG18, UL1015
L:	AWG20, UL1007
None	AWG22, UL1007

9.2. ELECTRICAL SCHEMATIC

The following pages contain the electrical schematic for this machine.


Outside World
IEC INLET
514-5078-5000
5A T
EP 1302
PRIMARY EARTH
600-6911-049UK
SW 1109
SWITCH
NOISE FILTER
EP 1379
600-7118-002UK
6 WAY AMP
M&L
560-5422UK
100V@5A
230V
17V@2.1A
0V
4 WAY AMP
U/P
HOD-1020UK ASSY AC UNIT
838-11856CE-02
CONN BD
JST VH 7P
HDT-60005UK
PVC SLEEVE
PANEL
EARTH PLATE
ASSY AC UNIT
PRIMARY EARTH
(AC BRKT)
HOD-1020UK
HDT-1000UK ASSY PTV
LEFT SPEAKER
RIGHT SPEAKER
130-5096
HOD-60025
HOD-1070UK X2
ASSY SPEAKER UK
HDT-4000UK
ASSY MAIN BD
HDT-1530UK
12VDC
FAN UNIT UK
EC814500
BELL CRIMPS
HDT-60004UK
HDT-4200UK
ASSY PWR SPLY
HDT-60006UK
SPY-60010 UK
SPY-60007UK
SPY-60009
838-13143-08
IC BD GUN SENSE SPY
838-13616
AUDIO POWER AMP 2CH
JST VH
HDT-4000UK
ASSY MAIN BD
400-5443
SW REGU FOR CHIHIRO
610-0617
GD-ROM DRIVE
600-7009-2500
HDT-60100UK
600-7242-250
600-7141-100
TO A4 P 2/2
TO A5 D-2/2
TO A3 D-2/2
TO A4 D-2/2
TO A1 D-2/2
837-13551-92
I/O CONTROL BD FOR JVS
ASSY CASE BOX COM NAO DIMM EXP
843-0001D-12
SCHEM 1/2
2x250mW
Resistors
HDT-60003UK
600-7155
HDT-4000UK ASSY MAIN BD
DRAWN
CHKD
CW
21/10/02
HDT-0000UK
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HOUSE OF THE DEAD 3 DX



8	BLACK		
7	ORANGE	E	LIGHT GREEN
5	WHITE	D	PURPLE
4	GREEN	C	BROWN
3	YELLOW	B	SKY BLUE
2	BLUE	A	PINK
1	RED	9	GRAY

WIRE COLOR

43	EARTH WIRE
U	AWG16 UL1015
K	AWG18 UL1015
J	AWG20 UL1007
L	AWG22 UL1007

ALTERATION

HDT-0000UK

TOP-ASS'Y

DRAWN

CW

21/10/02

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HOUSE OF THE DEAD 3 DX

DESCRIPTION

SCHEM 2/2

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